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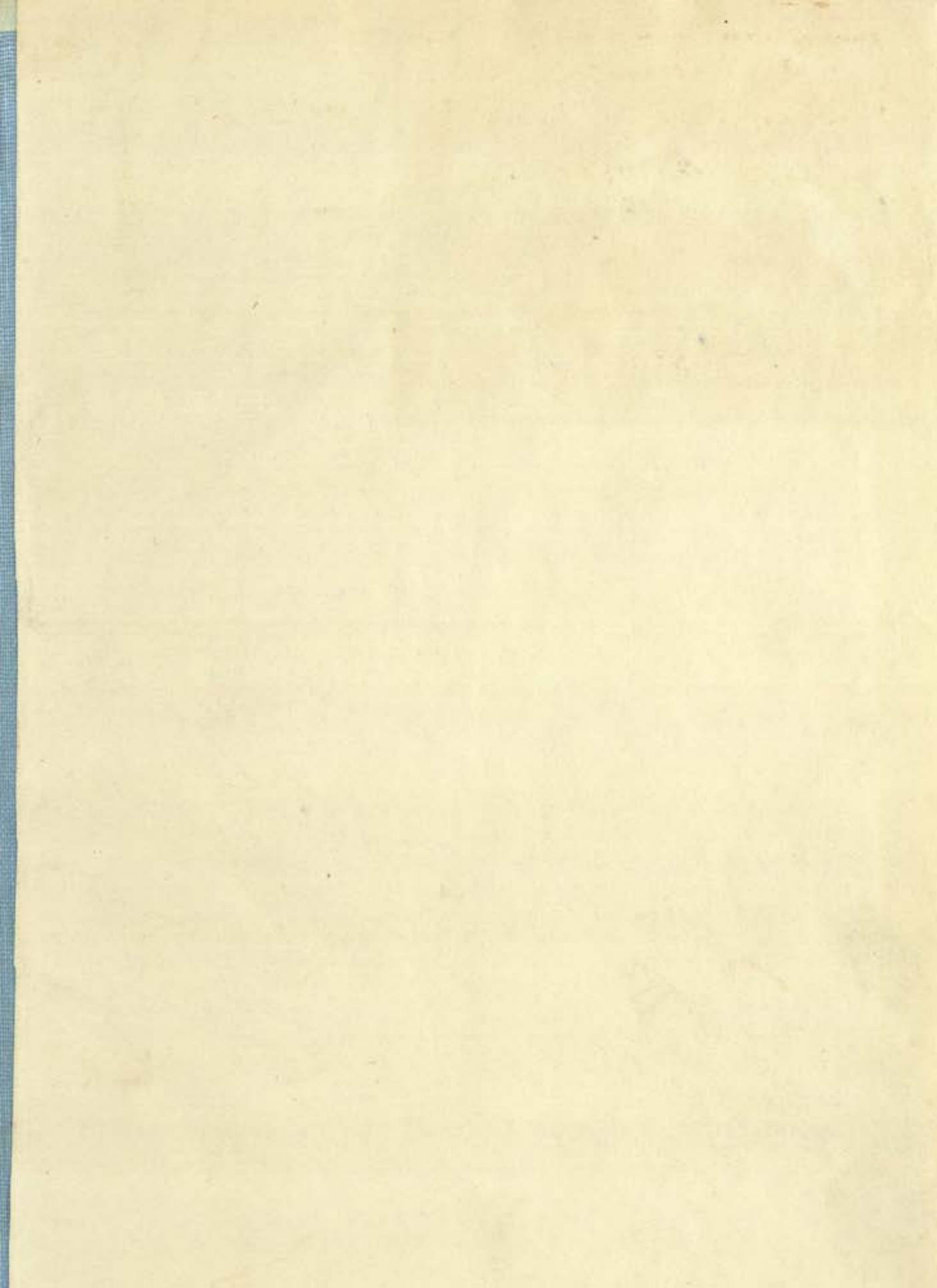
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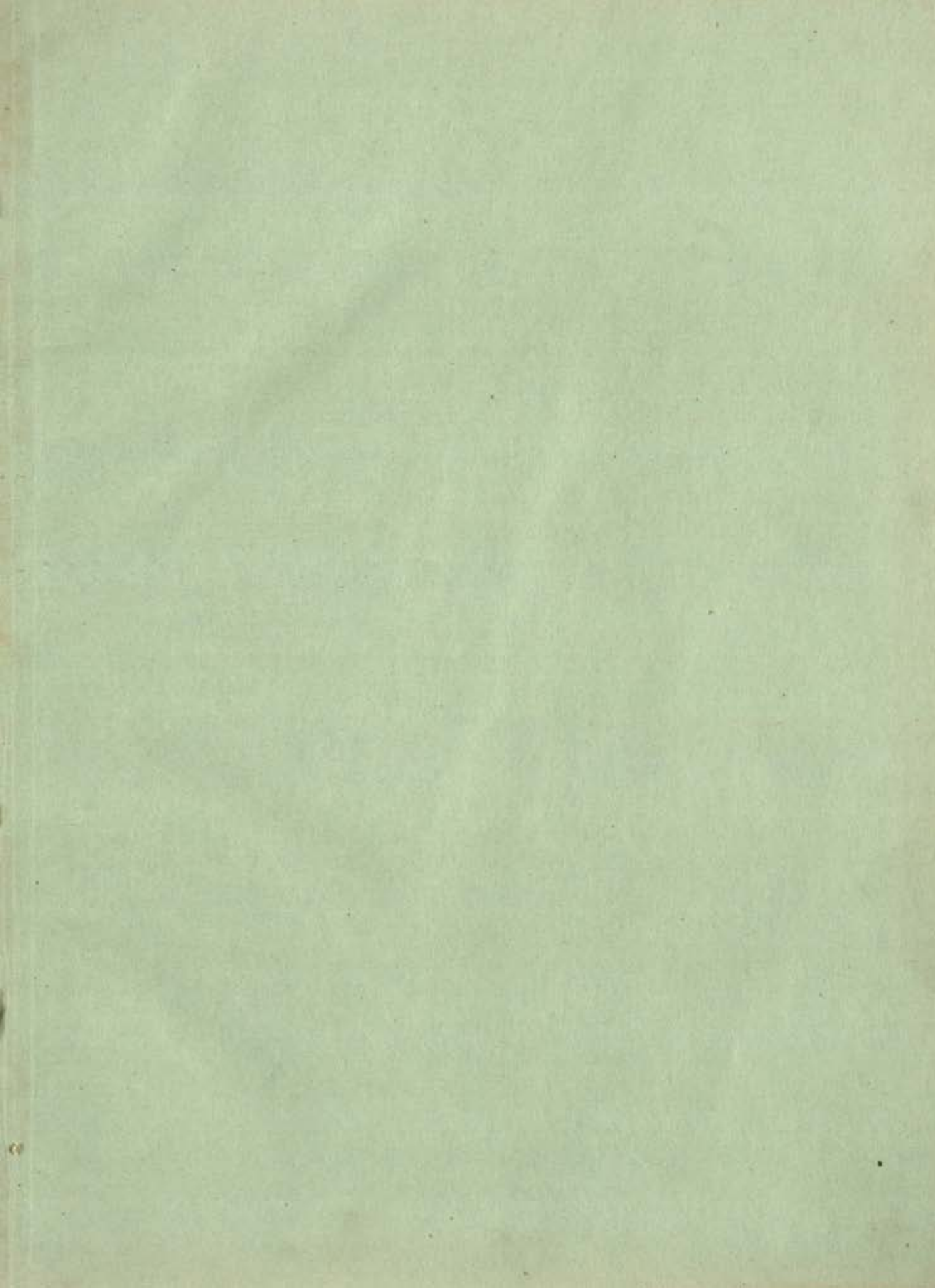
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MAN

A Monthly Record of Anthropological Science



The Patron's Medal of the Royal Anthropological Institute
(with a text figure)

A Middle Palæolithic Industry in Greece : Preliminary Report
(with two text figures)
E. S. Higgs

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Obituary
Hans Cory: 1889-1962

Proceedings of the Royal Anthropological Institute

Shorter Notes
The Boundaries of Explanation in Social Anthropology
Robin Horton

Correspondence

Reviews
General : Africa



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FORTHCOMING MEETINGS OF THE INSTITUTE

Thursday, 31 January, 8.15 p.m. MR. C. A. MORRIS: *The Cambridge Expedition to South East Asia, 1962 (with colour slides).*
Thursday, 7 February, 8.15 p.m. PROFESSOR F. E. ZEUNER: *Viking Settlements and Greenland Eskimos (with colour film and slides).*
Thursday, 21 February, 8.15 p.m. DR. L. S. B. LEAHY: *In Search of Early Primates (film).*

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THE PATRON'S MEDAL

I On 2 November, 1962, on the occasion of the Huxley Dinner, Her Royal Highness Princess Alice, Countess of Athlone, Patron of the Royal Anthropological Institute of Great Britain and Ireland, graciously presented the first Patron's Medal of the Institute to Mrs. Brenda Zara Seligman in recognition of her outstanding services to anthropology and to the Institute.

In commemoration of the occasion, Mr. Christopher Ironside's original design for the Medal, which is in cast bronze, is reproduced above. The following is an explanation provided by the artist of the different aspects of the Science of Man which are included in the design. In the centre of the Medal are discovered Adam and Eve, surrounded (reading clockwise from the top) by the symbols of man's activities. First, religion and magic are represented by the Lamb with Cross seated on a crescent moon with a magic pentacle, all surrounded by the sun; secondly, industry

is symbolized by a handaxe and a cogwheel; thirdly, science is represented by the caduceus of Hermes Trismegistus (who was identified with Thoth, the inventor of knowledge and geometry); fourthly, man's origins appear under the form of a Janus head (Janus being the god of beginnings) of a classical profile with a heavy-browed, chinless skull; fifthly, man in society has three aspects—authority and the law, exchange and commerce, and strife; sixthly, man's individual life from birth to death is epitomized in a small child holding a skull; seventhly, the arts are represented by Apollo's lyre; and eighthly, food and the domestication of animals are symbolized in a trophy consisting of the skull of a cow surrounded by sheaves of corn (which are supplemented in the finished medal by agricultural and hunting implements).

This reproduction, printed in a colour approximating to that of bronze, is expected to be selected for the Institute's Christmas card in 1963.

A MIDDLE PALÆOLITHIC INDUSTRY IN GREECE

PRELIMINARY REPORT*

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2 In contrast to the brilliant palæolithic industrial successions recorded in France, Germany, the U.S.S.R., the Levant and North Africa knowledge of the Old Stone Age in Greece has been meagre and uninformative. Apart from the cave of Seidi, situated between Thebes and Levadia (excavated in 1914), which contained a palæolithic industry, possibly a Gravettian of late Glacial Age, little has been found; otherwise there are only a few thin scatters of waste flakes, blades, burins and scrapers, in part excavated and in part collected from the gravel banks of the Piniós river. These have been attributed in a general way to two industries, an Upper Palæolithic industry, Aurignacian in type, and one of Mousterian origin. Nevertheless Greece for climatic and geographical reasons alone must be an important key area for the study of the Palæolithic of Europe and Asia. Geographically Greece lies in the path of cultural migrations to and from Europe, Asia and the Near East and many of the problems of pre-history rest upon the date and nature of these migrations. During a glacial period the low-lying areas of Greece must have had a favoured warmer climate comparable with that of the densely occupied areas of Spain, the Dordogne and Italy.

A survey carried out in July and August, 1962, by an expedition from the Department of Archaeology and Anthropology, Cambridge University, covered an area of Macedonia and Western Greece with the object of relating environmental and climatic changes to Stone Age industries. Between Ioannina and Preveza, near to the village of Pantanassa, a number of Middle Palæolithic sites were discovered. They lie in a rapidly eroding deposit which is screened by a cliff face from a gorge of the Louros river. The Louros, flowing from north to south, forms a natural route from the plain of Arta to Ioannina and from Ioannina over the Metsovon Pass to Eastern Greece.

The chipping floors lie in thin horizons some four inches in thickness in a fine iron-stained deposit of the silt grade which is up to 50 feet in depth. The silt is overlain by redeposited silt without iron stain some three feet in thickness. Above this are successive layers of breccia, scree and hill wash, together 20 to 30 feet in depth. Beneath the band of implements lies a cemented breccia of immense proportions, probably indicating a cold period of great severity.

The artifacts are in quantity, quality of workmanship and preservation unique. The chemical and weathering processes, which have produced a thick white patina up to one-eighth of an inch in thickness, have sometimes passed completely through the artifact, so that it is in consequence extremely light in weight, brittle and easy to abrade. Nevertheless they are in mint condition, with sharp edges and without a trace of wear since their original deposition.

* With two text figures

The proportion of finished tools to waste is high. Basically the industry is Mousterian with points (fig. 2 (1, 2, 3), fig. 1 (3)), D-shaped scrapers (fig. 2 (4)) and side scrapers (fig. 2 (5)). There are discoid and tortoise cores (fig. 1 (2)). Associated with them are bifacially worked artifacts which repeat some of the forms present in the Eastern Mousterian (fig. 2 (7), fig. 1 (4)) as in the German highlands. There are other bifacials however, worked to a point at both ends (fig. 1 (1)), which are more characteristic

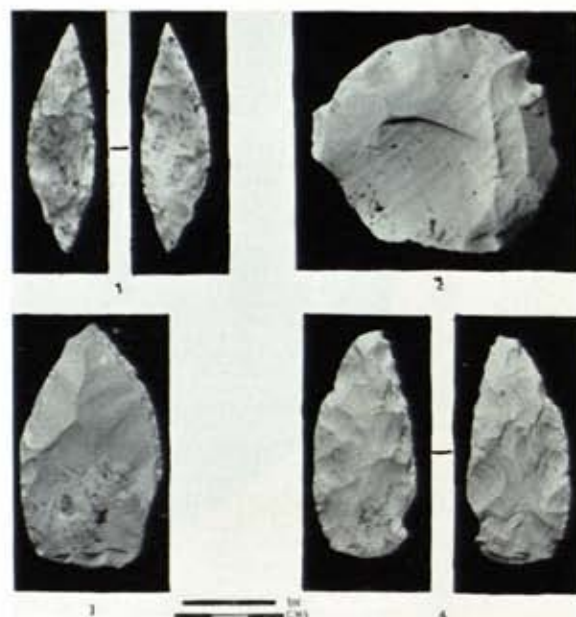


FIG. 1. MIDDLE PALÆOLITHIC IMPLEMENTS FROM NORTHERN GREECE

of industries further to the west. In the same deposit is a small handaxe, the most southerly so far found in Europe. There are also present steep scrapers and some blades which suggest affinity with industries of the Advanced or Upper Palæolithic.

The importance of this industry lies not only in the fact that it is the first well defined palæolithic assemblage found in Greece, and the earliest known artifacts found in that country. The bifacial leaf-shaped tools have affinities with those industries of Germany, Hungary and the U.S.S.R. which have a bearing upon the problems relating to the first entry, or the emergence, of Upper Palæolithic industries and of *Homo sapiens* in Europe prior to the end (c. 28,000 B.C.) of the first warmer oscillation of the last Glaciation between the Early and Main Würm.

The expedition was greatly indebted for active assistance and co-operation to Mr. S. I. Dakaris, Ephor of Ipiros.

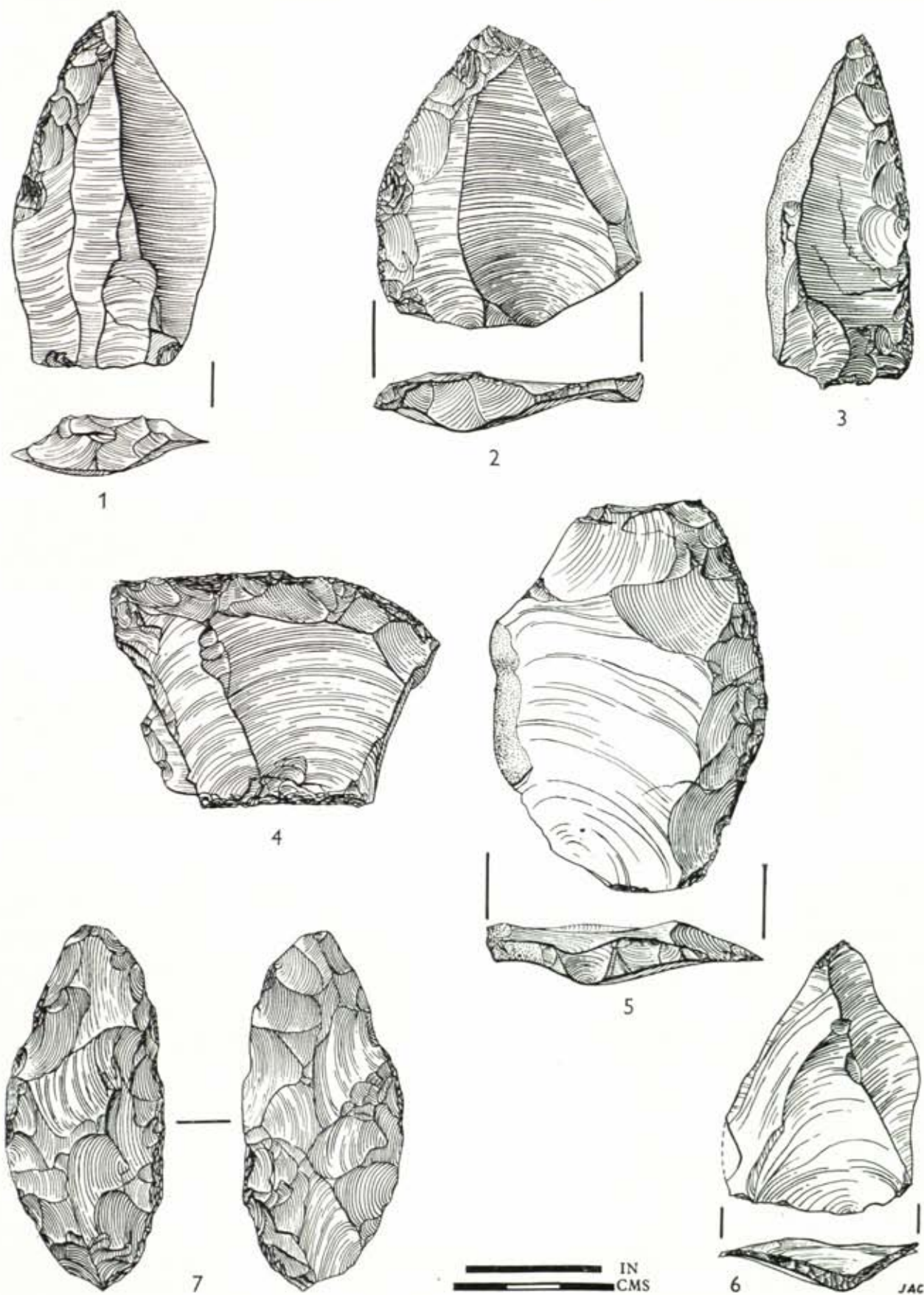


FIG. 2. MIDDLE PALEOLITHIC IMPLEMENTS FROM NORTHERN GREECE

MEANING IN ZANDE PROVERBS*

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3 The Azande are rich in proverbs and they are widely known and some of them much used among them. The late Canon E. C. Gore has recorded (*A Zande Grammar*, n.d. (1931), pp. 134-46) 100 specimens and Father S. Bervoets has recorded 335 specimens ('*Hinapai*': Enige spreekwoorden van bij de Zande,' *Zaire*, 1952, pp. 719-32, 1953, pp. 182-95, 1954, pp. 1043-1065). I have myself up to the present published only some 30 examples from my collection ('*Sanza*, a Characteristic Feature of Zande Language and Thought,' *Bull. S.O.A.S.*, 1956, pp. 161ff.). My object in that article was to show that Zande proverbs belong to a wider category of double-talk, speech (and action) intended, usually with malice, to convey a meaning other than their overt sense, and I suggested that this kind of speech might be connected with witchcraft beliefs and political institutions. To give a single example: a man is drunk and his wives make seemingly innocent remarks to make fun of him without his knowing it. They peck at him, Azande say, after the fashion of a perforated bag (*kokoro mongu*). A man puts a thing in it and, without his knowing, it falls on to the path. So a man is made fun of by remarks with a double meaning without his being aware of it. The object of the present article is different. I briefly noted in the earlier one that a proverb may vary considerably in meaning with the situations in which it is used and consequently may be interpreted differently by different persons, and I wish now to give some illustrations of this plasticity by collating various versions in a few examples. We have for the purpose Gore's versions from the Azande of the Sudan, Bervoets's versions from the Azande of what was till recently the Belgian Congo, my own Sudanese collection of 1927-1930 (including some written by my clerk Mr. Reuben Rikita) and 81 specimens written for me in 1961 by a Zande schoolmaster, Mr. Richard Mambia (also Sudan). Abbreviations for these sources are G., B., E.-P., R.M. Mr. Clark Cunningham has been kind enough to help me with the Dutch versions.

Zande proverbs are not set formulae. There can be a good deal of variation in their verbal structure. This will be evident in the specimens later presented. A simple example here: *i na roganga ngere ku ngba yo ue te*, one does not put two crabs into one's mouth at the same time, can be given an interrogative form, *i na roga ngere ku ngba yo ue?* does one put two crabs into one's mouth at the same time? or in a reported speech form, *u a roga nga ngere ti ngba ru yo ue te*, (he said) he does not (would not) put two crabs into his mouth at the same time. Also different words may be used. Thus I have heard this proverb spoken as *i na koda nga ngere ku ngba ue te*, one does not put together two crabs

in the mouth. To give another example: there is a proverb *wo na ora nga limo ru te*, a snake does not run away from (disown) its name, which means that a man would not disown his clan (*ngbatunga*), so it appears in Bervoets's list as *wo naoranga ngbatungalu te*, the snake does not disown its clan. It would seem also that either through a misunderstanding of an informant or of his questioner a change of meaning may sometimes occur. An example of this is No. 10 of the present article, where a well-known proverb the meaning of which is determined by the word *zungadi*, to appeal to, appears in Bervoets's list as *sungadi*, to wait for. A curious example of this is B.'s *i nahinanga gbinza ti wili palanga te*, which he translates 'no young man is treated as though he were a greybeard' or with the sense of 'in the elder one recognizes the youth no more' (1954, 45). R.M., on the other hand, has *binza* (witchdoctor) instead of *gbinza* (old man), with the result that the whole meaning of the proverb has changed to 'one cannot tell whether a youth is a witchdoctor' with the sense of 'you cannot tell by sight whether a man is strong or courageous or clever. Do not judge a person or dismiss him just on account of his appearance.'

However, the point that I wish to make clear is that, quite apart from such changes as may take place in meaning due to possible misunderstandings of the kind mentioned, Zande proverbs often have a wide range of meanings. They can vary according to circumstances, as will be noted in the samples listed below. They have been selected because more than one commentary on each is available. I would say that they are known to almost everybody.

(1) *sunguasungu na bi rumburu ruaru*, Sitting sees Standing's buttocks. G.'s comment (69) is 'the quiet man sees through the blusterer.' E.-P. has 'what you will do to me, I am waiting to see it of you.' R.M. has 'if someone is talking a great deal about something while another is silent, after some time the one who makes such a clamour, it is he who makes a mistake in that very affair, and then the silent one makes fun of him.' (Also B., 1953, 77.)

(2) *i ni suka age ku akoro akua ra yo*, they crush (edible) termites into the pots of others (termites). G. has (72) 'if one is generous to another his generosity is returned in the same spirit.' B. (1954, p. 1049) says that it has the very different sense 'all termites are crushed together in one pot' and puts it under the heading of 'everyone is equal before the law.' E.-P. has 'you have not been good to me, so I will not be charitable to you'; also, 'if you are generous to a person he will also be generous to you'; also, 'oh, my mother's son, since we married a girl of your family in the past, there is no difficulty. You marry a girl of our family. They crush termites into the pots of others. This means that since you were kind to me I will be kind to you.' R.M. has 'if you do good to another he will do good to you later at such time as you lack something.'

(3) *sambiasambia i a so ko perapera, tiriki i a so ko pu*, the spear grazed the cautious one and it went right through the careless (foolish) one. B.'s translation (1952, 4) appears to mean 'the nosy parker (the first to hear, the first to see) will be run through,' the sense of which would seem to be that a nosy one gets into trouble. E.-P. has *tiriki i a so ko pu, sambiasambia i a so ko perapera*, Stay-at-home,

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they spear him right through; Wanderer, the spear grazes him, the translation being made to harmonize with the commentary: 'Stay-at-home is a rich man who does not like to move far from his riches, for he is satisfied with his riches and never wants to be away from them. Those homes near his, he does not know them at all, for he does not visit people. But Wanderer for his part is a poor man who knows all the country round about him, for he is constantly going about to beg things from people, so he knows all the paths in his neighbourhood. Then one day war comes upon them, for their homes are close by. The war party comes and attacks Stay-at-home and he has no idea where to escape to, for he does not know the paths by which he might flee. So they spear him right through and he dies. But he who is Wanderer, he flees and survives, for he knows all the paths near his home and also all the neighbouring homesteads. He begins to run away, and when they spear him the spear only grazes him and he is not badly wounded. He flees to survive, for he knows the whole countryside. He who just remained always at home and did not walk around, it was him they killed. So people speak this *sanza* about it.' R.M., whose rendering is that first given, comments: 'Cautious was always on the alert when interfering with something which was not his but the property of another. Careless was heedless. When people warned him it was in vain. He paid no attention, and that is why he was speared right through.' It will be noted that the sense in these versions is somewhat different. (The words *perapera* and *pu* are onomatopœia.)

(4) *i ni ini ba wo rago zo ru*, they know a male snake when they roast it. G. (15) has 'a man's character is known at the time of trial or testing.' E.-P. has 'you will know it when you see it'; also, 'if you have done a man some wrong, such as committed adultery with his wife, he being ignorant of it, other men will tell you that you had better stop acting as you are acting, because the husband might get to know about it. It is about that that you speak this *sanza*. However, it is as though one said "you will know it on that day when it comes out, you will then know the truth of it." It is about that that one says that they know a male snake at the time of roasting it, because when they begin to roast a python its male member rises to come right out with the heat, whereas before, when it was alive, it was hidden.' R.M. has 'things people deny now, they will know them in the future when their day comes.'

(5) *mbara nga mo na ini ira ati?*, are you the elephant which killed the owner of the cultivation? G. (5) comments, 'are you angry with a man for keeping what's his own?' B. (1954, 152) gives a different sense to this proverb, which he translates 'are you an elephant which comes to plague (*plagen*) the owner of the cultivation?' He comments, under the heading of *omnis homo mendax*, who does not lie?, 'against those who openly offend (attack) you in your own home, one can set force against force. What is this elephant coming here to do?' E.-P.'s comment is that first an elephant spoils the cultivation and then it kills its owner. This is adding, as we say, insult to injury, as when a man commits adultery and then insults the husband. R.M. has, 'you should not get angry with a man, or kill him, about his own thing, like the elephant which kills a man who comes to chase it from his cultivation.'

(6) *i na so nga kua gude e ru ku vuru nai yo te*, they do now sew (prepare) the child's hide-strap (cradle) while it is still in its mother's womb. G. (27) quotes by way of comment 'don't count your chickens before they are hatched.' B. (1953, 83) comments that the sense is that one should think of the future but not make too much preparation. R.M. has 'do not congratulate yourself about anything before it has happened. Let it happen first and then congratulate yourself. How can you know whether it may not be spoilt for you?'

(7) *singbagbe na riti ga ba ko kpoto*, It-is-very-good ate all his father's hide. G. (33) has 'Singbagbe ate his father's buckskin and then went off to establish an alibi, and came back feigning innocence,' and he quotes by way of comment 'all be not true who speak one fair.' B. (1952, 74) gives a quite different sense to this proverb, which he translates, far from the Zande text, as 'he who says "how delicious it is" already has the father's dish inside him'; and he says that what is implied is that the son has had congress with one of his father's wives. R.M. has 'a certain man had a son, and this child used often to steal food from his father's wives.

One day one of the wives cooked a hide and, leaving it cooking, everybody [except the son] left for the cultivations; but before the son left he ate up all the boiled hide quickly, and then he also left for the cultivations. Then, in the evening they found the hide missing. So this child began rejoicing thus, "it is very good (*si ngba gbe*), now that they say I am a thief, that I ate the hide, it is very good that I also was in the cultivations." But his father's wife knew that it was he who had stolen the hide. She remarked, "he who says it is very good, It-is-very-good who has eaten his father's hide." Many people play such tricks. They say that it was not they, but it was they who did it.'

(8) *gbate nga mo na siri kundu ru?*, are you the francolin which tore its own crop? (in trying to escape from a trap). G. (7) has 'do not lie against yourself.' B. (1953, 45) translates this almost as above: 'are you a partridge that tears its own crop?' He comments 'you must be a stupid partridge to tear your own crop in the net.' E.-P. has, 'this means what you say to your father is not proper. Since you speak thus and he is killed, how will you manage after his death?' Also: 'this means that a man gives you something, saying "do not mention it to anyone." You then go and meet a company of men and say to them "you, you are hungry; I have eaten something good." It is about this that they say that the francolin has rent its crop. You talk about that food which is in your stomach, and if a witch hears it he bewitches you, thinking about your having eaten something good; it is as though you yourself had told him to rip open your stomach, of your own doing, since you said that you had eaten something, for it was on account of that that you were bewitched.' R.M. has 'one does not talk openly of one's bad deeds, or else one gets punished.' The change of meaning to meet different situations is here very evident.

(9) *i ni rigi nduka, nduka ki rigi ira ha*, they feed (manure) the ridge (of earth and rubbish surrounding a homestead), and the ridge feeds its owner (with food grown on it). G. (74) has a different form: '*i rigi nduka si ki ru herewe ka riga ira ru*, they feed the garden and it stands again to feed its owner'; and he quotes as comment 'give, and it shall be given unto you.' B. (1952, 73) has another form: '*mu naliga nduka, nduka nisa tilu ka liga lo*, feed your dunghill (mesthoop) and the dunghill will feed you.' E.-P. has 'one should show gratitude. Thus a man says to his daughter who has run away from her husband "oh, my child, what shall we do? A man has married you and has given me good spears [bridewealth]. Well, I have given the spears to your brother and he has married with them. Now you run away from your husband. Oh, you will ruin us. Please go back. I begat you and was much put to labour and weariness on your account and then you want to ruin me. They feed the refuse heap, and the refuse heap in return feeds its owner"'. Also, '*mo na riga nduka, si ki rigi ro*, you feed the refuse heap and it feeds you. This means that a man says either to another or to his own son "since I have fed you well, when you grow up you feed me on my part: you feed the refuse heap and the refuse heap feeds you." People do not say this really about the refuse heap. Azande say it in double-talk (*sanza*) about people.' R.M. has 'you beget children and weary yourself in caring for them when they are little and until they are big; and then when you are old, who are their father or their mother, they weary themselves [for you] in their turn, as you did for them.'

(10) *sooro a zungadi sende a zungadi, si u a rimi ti ni*, the earthworm appealed to (flattered) the earth, that is how it entered it. G. (23) prefers 'persuade' rather than 'appeal' or 'flatter' for *zungadi* and his comment is 'use tact.' B. (1952, 46) has *solo nasungadi sende asungada*, the earthworm waits upon the ground (till the earth is soft enough for it to enter it), and he comments that to exploit circumstances is the whole thing. R.M. has 'when you want something good to come your way, then you must humble yourself until permission is granted you.' The interpretation given E.-P. was 'since it is you who have made a mistake (done wrong) do not get cross.'

(11) *rindi mbara na gasa nga ru te*, the tusks of the elephant are not too much for it. G. (73) comments, 'the answer to one who says the thing you are doing is beyond you.' R.M. has 'however big a person's head or one of his members, or anything about him, in people's eyes, or one of his possessions; or however grave his

situation may appear to be to other people; it is not too much for him and it does not appear so hopeless to him.

(12) *i ni ngere ti boro wa i ni ngere ti baka?*, can one look into a person as one looks into an open-woven basket. E.-P. has: you cannot always know how a person is feeling or thinking by looking at him. You can look at him but not into, or through, him. This is often spoken in reference to witchcraft. R.M. has the negative form, *i na ngera nga ti boro wa i ni ngere ti baka te*, one cannot see through a person as one can through an open-woven basket: 'even though you are a man's master you cannot know his thoughts (feelings) about you, both good and bad; you cannot tell by looking at a person whether he is a man of substance or not.'

(13) *dandara ni irisi ti ru ni kepe ru*, the wild cat honoured itself by its cry. G. (29) has 'the wild-cat causes itself to be respected by its cry' and he comments 'when the natives hear the wild-cat at night they hide themselves from fear of seeing it. To see it is to die. Hence the proverb signifies "though I be as nobody in your eyes, I can do for myself"'. B. (1953, 33) has 'the wild cat wishes itself luck with its cry' and 'the wild cat (with her dismal shriek) prizes her own cry,' and he comments 'each person talks after his own fashion.' E.-P. has also *dandara ni kiisi ti ru ni kepe ru*, the wild cat exalts itself with its cry, with the commentary 'this means that as there is no one who will exalt me I must exalt myself.' R.M. gives a similar interpretation: 'if there is no one to exalt you, you exalt yourself.'

(14) *bi mvuko ku be ba mo*, see the billhook in the hands of your father. G. (35) comments: 'leave the job to the man who knows it.' B. (1952, 75) has *nu bi mvuko be bamu, ya mu ti yamu, u ti ati*, if you see a billhook in your father's hands, say then to yourself 'it cuts' [it is sharp], and he says that this means 'beware of seducing your father's wife, since that will cost you very dearly: un homme averti en vaut deux.' R.M. gives 'see billhook in the hand of your father means that there are things you see people doing (successfully) you think look easy (elementary) and you can do them yourself. But when you try you fail. It is not wise to take charge of something you do not know well' (when you see your father using a billhook it looks very easy to use, but when you try, you find you are not capable of using it).

(15) *sa gara a kati rogo mbaro yo*, the tail of the lizard broke off in play. G. (10) comments 'do not get angry when at play.' B. (1952, 9) has two variants: *gini, gala keti salu wele?*, what? the lizard has lost her tail, and *agala nangi mbaro dagbwa la lukutu*, the lizards do not play for long among themselves. This is one of what he calls cautionary proverbs and refers, he says, to an unfavourable condition for gaining wisdom, that is through passion. E.-P. has that this is said to a man who jokes with you but whose humour is not free from malice: 'there is a man who jokes with you all the time, but his joking is not straight, it has malice in it for you. It is such that should you lose your temper with him he will lose his also and wish to have a quarrel with you. It is this that people speak this *sanza* about, because a man's joking is not well intentioned.' R.M. has 'many people begin making trouble for others in play. When they see that you do not take offence, they then begin to mock you and continue to do so; whereas if you had got angry with them at the beginning they would have been afraid of you.' This is the opposite of G.'s interpretation.

(16) *kurugbo go na ora nga be we te*, an old (deserted and dilapidated) termite mound does not flee from fire (bush fire). G. gives an interrogative form, *kurugbo go ni ora be we?*, does the deserted anthill run from the fire?, and he says (24) that this means 'I have suffered so much, why should I flee from death?' B. (1954, p. 1047) gives a quite different meaning: 'old fellows, tough men, they could offer resistance to the enemy.' R.M. comments 'an old person does not fear misfortune, nor does he fear death.'

(17) *u a ziri ku paku ba-mo-ini-e*, it rotted near the home of Sir-you-know-it. G. (13) has 'the man who thought he knew everything failed to know of the good meat lying beside his village [home-stead]'. R.M. has *u a ziri ku paku ba-mi-ini-he*, it rotted near the home of Sir-I-know-it: 'many people think they know everything, but they don't; like Prince Sir-I-know-it, who arranged with one of his subjects that if he [the subject] brought him something like meat or beer and found his master with many people he was

to say "well prince, you know it." So this subject of Sir-I-know-it brought the prince meat and found him with many people. He said "well prince, you know it." His master replied "yes", but afterwards he asked no questions. So the meat rotted where the subject hid it. It is better for us to ask and so understand things.'

(18) *nganganango a aka wirinai mbiko inapai*, the millepede carried its brother out of kindness. G.'s version (99) is *nganganango na aka wirinai ti ngbanga regbo*, the millepede carries its brother out of good nature, and his comment is 'won't you do it out of kindness?' B. (1952, 2) has another variant, *nganganango naaka wilinai kango hinapai*, one millepede carries the other out of gratitude (*dankbaarheid*). This, like No. 15 comes into his class of cautionary proverbs. E.-P. has yet another variant, *nganganango a tindi wirinai mbiko inapai*, the millepede carried its brother on its head out of kindness (*tindi*, like *aka*, means to carry, but on the head), with the sense of either 'have you no compassion?' or 'you have no compassion.' R.M. comments 'our kindness makes others be kind to us when we are in difficulties.'

(19) *i na yuga nga age fu boro yugu kpata ra te*, when a man is shown (given) termites (a termite mound) he is not also shown their quarrel (how to defend his possession). B. (1954, 54), if I understand him rightly, gives the sense of this proverb as: people must always teach the young their duties to their older kinsmen. E.-P. has: a man has given his termite mound to another and then if a third man comes along and says that the mound belongs to him the affair lies between the two of them and the donor is not concerned in it. A further context is: a man gives his daughter in marriage to another and if she then commits adultery it is the husband's responsibility and not that of the father; and so in all such matters. R.M. has, 'if you are given something, maybe a wife, maybe a termite mound, it is not further the donor's duty to deal with those who come after your wife or to take your termites. It is your own business to deal with whatever may threaten your possessions.'

(20) *boro na kpama nga ti ni ni wirinzaga kura ni te*, a man does not scratch himself with another's finger. E.-P.: 'this is as though one said "(this is) a man's possession, I cannot give it to you, he would take it from you"'. It also means that a man should not try to gain a reputation for generosity with the goods of others. R.M. has 'a man cannot make gifts with another's possessions. He can only give away his own property without fear, because no one else has a claim to it.' (Also B., 1954, 104.)

(21) *kperende a kpari ti ru ni sue ru*, the cricket cried for (praised) itself with its (own) wings. G. (58) comments 'I am able to look after myself though all forsake me.' B. (1953, 32) translates the proverb: 'the cricket sings its lament with its hat only.' Hat (*hoedje*) is used here in allusion to the plumes (*sue*) that Azande wear in their straw hats. The proverb, he says, refers to there not being many mourners at a poor man's funeral, and only a mourner's plume will dance with him in the mortuary dance. The cricket is a solitary animal. E.-P.: 'since I have no one (to help me) I am going to do my own work by myself.' Also: 'this proverb (*sanza*) refers to lack of kin. For if a man has no kin unrelated people ill-treat him. He then says "I am trying to do my work by myself, with my own hands, for the cricket cried for itself with its wings." His wings are his hands, in reference to work. People say this proverb on account of weariness.' R.M. has 'if something frustrates a man and there is no one to help him it is for him to buck up and act for himself in the matter, because there is no one else to act for him.'

The point that I have wished to make—that the meaning of a proverb can, and does, vary from situation to situation—has been, I think, sufficiently illustrated by the examples I have given. It may be an obvious point to make, but only too often in the literature on African peoples we are given a single meaning, sometimes in the form of an English, or even a Latin, proverb to which a native proverb seems to correspond, though the correspondence can never be more than a more-or-less one; and English proverbs also can be used in different situations with a variety of

nuances. The Azande are, I need hardly say, well aware of the situational determination of meaning in their proverbs; and the case is the same presumably among other African peoples. My laborious citation of examples is neatly summed up in an Akan story which Mr. Charles Van Dyck permits me to quote from his B.Litt. thesis (*Aspects of Traditional Akan Society and Culture, as Represented in Akan Sayings, with Special Reference to Oaths and Proverbs*, 1962, p. 17): 'In one of the stories of the Akan, we are told of an *Omanhene* (Paramount Chief) who had heard another *Omanhene* to be well versed in proverbs, and sent his linguist to him praying to him that he might recite a hundred proverbs to the linguist so that he could pass them over to his own *Omanhene*. The linguist went and having been given water to drink as the custom demanded, was asked the reason of his appearance. He told the king the reason of the errand. The King asked him to close his eyes. After a time he was asked to open them. The king

asked him what dream he had dreamed. He replied that he had not slept to be able to dream. The king interjected saying, "You have rightly answered. Go and tell your *Omanhene* that one sleeps to dream, proverbs do not come out of the absence of a situation".'

This paper is no more than a demonstration in a particular case of a general observation that has been made by others, and by none better than by R. C. Trench (*Proverbs and Their Lessons*, eleventh edition, 1905, p. 94; first published, 1857): 'A remarkable feature of a good proverb is the immense variety of applications which it will admit, which indeed it challenges and invites. Not lying on the surface, but going deep down to the heart of things, it will prove capable of being applied again and again, under circumstances the most different... There can be no greater mistake than the attempt to tie it down and restrict it to a single application, when indeed its glory is that it is ever finding or making new applications for itself.'

OBITUARY

Hans Cory: 1889-1962

4 Hans Cory, O.B.E., Tanganyika Government Sociologist, who died in Dar es Salaam in April last, was an anthropologist of the old school. He was not a theoretician; he published no analytical treatises on sociological theory or methodology; he simply lived, worked and died in Tanganyika, and *did* anthropology. Again, although nobody knew the people whom he worked among better than he did, his fieldwork was not of the modern, intensive 'all-in' type. Rather he sought the answers to the questions which interested him through long discussions with the people best qualified to provide them, usually the older and better-informed members of the groups that he studied. And, to the great benefit of the Government which he served (and so, ultimately, to the benefit of the people among, and for, whom he worked), he generally got the right answers.

His considerable publications on Haya customary law (with M. M. Hartnoll) and on Sukuma law, custom and political institutions were, especially, of immense and acknowledged value to the Tanganyika Government. But they were more than that. Though Cory was not interested in theory for its own sake, some of these and others of his writings were of more theoretical importance than many more pretentious works. His studies of customary law were justly acclaimed in the professional journals as forming a solid contribution to the understanding of native law in Africa, and his work on Sukuma chiefship, in the contexts both of the indigenous social and political systems and of the changes consequent on European administration, added significantly to our understanding of the working of native political institutions in Africa and of the modes of their adaptation to social change.

But Cory's work was not restricted to political and legal organization and land tenure, nor were his researches confined to

the Lake Victoria area. In his *African Figurines* (1956) he published some entirely original ethnography, concerned with the symbolism of initiation among some relatively little-known tribes of eastern Tanganyika, with a wealth of apposite illustration and comment. And among his various published papers, an article on the *Buswezi* (a study of initiation into a spirit-mediumship cult among the Sumbwa of north-western Tanganyika) was of particular interest to me; it cast significant new light on a relatively unknown cult which recent research has shown to be very much more widespread in East Africa than was hitherto supposed.

In the range of his interests, and in the breadth of his knowledge of the indigenous peoples of his adopted country, Hans Cory was unique among the anthropologists who have worked in Tanganyika. In his writings 'pure' and applied anthropology meet without disharmony. His published work, free from the fashionable jargon of much contemporary ethnography, has not only been of direct use to the administration, but at the same time has contributed importantly, and intelligibly, to East African ethnography on a wide front. Though Cory was never a university teacher of anthropology, the respect in which he and his work were held by his fellow anthropologists was shown by his election, some years ago, to membership of the Association of Social Anthropologists of the Commonwealth, a professional body most of whose members hold academic posts in the subject.

Finally, and perhaps not least important, Cory will not only be remembered in Tanganyika as an ethnographer of international reputation and as an adviser to the Government; he will also be remembered as a person. No one who has seen him at work in the field, as I did a good many years ago, is likely to forget the easy, friendly and essentially human quality of his dealings with the Africans whom he worked with. He had a genuine regard for them, and they reciprocated this regard. Even by itself, this would be no mean memorial.

JOHN BEATTIE

ROYAL ANTHROPOLOGICAL INSTITUTE

PROCEEDINGS

MAN and its Future

5 With this issue certain technical improvements are introduced in the production of MAN. The most important concerns the type of paper used for the text pages, which has hitherto been of a slightly coated quality very suitable for type-set matter and for line illustrations, but much less so for half-tone reproductions of photographs, unless they were unusually distinct. Hence, during its first 62 years each issue of MAN began with a separate plate on a much more expensive fully coated art paper, 'tipped in' by hand, and affording excellent reproduction of the half-tones selected for special treatment. But with rising labour costs tipping-in is an increasingly uneconomic process; moreover, this arrangement imposed an arbitrary pattern in the editorial process of making-up, for if an article's illustrations needed this special treatment, it had to be given the first position in the issue, whatever its actual importance. Recently, however, the coated paper on which this issue is printed has been developed, offering at moderate cost a quality of reproduction reasonably comparable with that of the text paper hitherto in use. The Hon. Editor of MAN and the Council of the Institute have welcomed the opportunity for a more logical and flexible arrangement of articles and for a marked improvement in the general quality of illustrations. This change is not expected to affect either the number of illustrated articles or the total number of illustrations published, although there will certainly be greater variation from issue to issue in this respect. It will be possible to publish additional tipped-in plates for special purposes (e.g. where colour printing is required), when their cost can be met from outside sources.

The Council and the Hon. Editor have also been considering whether the content of MAN can be improved and especially how to extend its coverage of current developments in the very wide

fields of anthropology, archaeology and related subjects with which it deals. Clearly MAN can publish only what is submitted to it (if it is not to be undesirably overweighted with editorial matter), and the Hon. Editor has more than once urged in these columns the need for all important new discoveries and research developments to be noted herein as quickly as possible; frequently he commissions notes and articles on matters that come to his notice, but it is of course hardly possible for an honorary editor, carrying out single-handed the whole editorial process from selecting articles to passing page proofs, to maintain close personal contact with events in so many different fields. For these reasons, the Hon. Editor has proposed, and the Council has approved, the setting up of a system of advisers and correspondents (the latter being drawn from all parts of the world, not merely from Great Britain, in view of MAN's international character), with the functions of offering advice and criticism of all kinds and, above all, of keeping MAN up to date with activities in their several fields and themselves ensuring that these are translated into articles submitted for publication. (This by no means indicates a shortage of good material for MAN, for on the contrary there is a pressing need for more space; what is especially wanted is a strengthening and diversification of the Shorter Notes section.) The names of the first editorial advisers will be announced shortly. In addition, the Council has approved the appointment of Mr. David Boston as Hon. Assistant Editor, concerning himself among other things especially with book reviews.

A suggestion has been made that, because of the obvious saving on covers, envelopes and postage, MAN might be published every two months rather than monthly. A questionnaire relating to this is included in this issue which readers are requested to return to the Institute so that the Council may consider the matter further.

SHORTER NOTES

The Boundaries of Explanation in Social Anthropology. By W. R. G. Horton, University College, London

6 Having come into British social anthropology after training in psychology, I find myself entertaining very mixed feelings about my new environment. On the one hand, I admire the high standards of accuracy and penetration required of fieldworkers. I admire, too, the intolerance of those platitudes which fall thick and fast from the lips of so many other students of human social life. On the other hand, I find one big and dismal contrast with my previous experience in psychology; and that lies in the chronic preoccupation of social anthropologists with drawing tight, confining boundaries around their subject.

In most of their spoken or written methodology, social anthropologists seem inordinately concerned with emphasizing the distinctiveness of their approach rather than its power to give understanding. They are concerned to find some aspect of social life which is their exclusive domain; to define some mode of abstraction from social data which is uniquely theirs; and to agree on a pattern of explanation which is characteristic of social anthropology alone. With all this goes an emphasis on how many

approaches to social data are neither appropriate nor relevant to social anthropology.

As some of the most elaborate manifestations of this boundary-drawing seem quite unrelated to questions of explanation and understanding, this paper will ignore them. It will merely examine ideas about appropriate and inappropriate patterns of explanation.

So far as one can gather from writing and reminiscence about the period, the boundary-drawing obsession was not marked in Malinowski's heyday. One searched for explanations wherever one could find them, and was grateful if one succeeded.¹ The element of intellectual isolationism seems to have come in with the ascendancy of Radcliffe-Brown; and the justification for it was largely derived from Durkheim. The key weapon here was Durkheim's distinction between 'social facts' and the facts of psychology and human biology. For Durkheim, the category of 'social facts' included all human beliefs and activities explicitly handed down to the individual by accredited socializing agents, and accepted by the individual as right and compelling in view of their source. It excluded all other beliefs and activities as events arising within the 'individual consciousness.' Significantly, this drastic demarcation of the sociologist's province was inspired not

so much by explanatory considerations as by the desire to mark out a distinctive domain. Thus at the very beginning of Durkheim's classic work on method (Durkheim, 1938, p. 1), the author stresses that it is necessary to have a precise demarcation of things social because otherwise 'sociology would have no subject matter exclusively its own, and its domain would be confused with that of biology and psychology.' (As if the biologists now riding so high on the tide of discovery ever stopped for one moment to worry about being confused with chemists, physicists or psychologists!) Taking this demarcation over from its inventor, Radcliffe-Brown used it assiduously. With it, he also took over its underlying motive; and social anthropology acquired the isolationist tendency which has haunted it ever since.

Now the most important thing to realize about Durkheim's demarcation rule is the complete strangulation of enquiry which would ensue were it ever consistently applied. First of all, no one who accepts the Durkheimian definition of social facts could ever legitimately describe social change, much less attempt to explain it. For change involves the emergence of activities and beliefs not explicitly transmitted by the accredited socializing agents, and these are excluded by definition from the sociologist's province. Worse; a rigid application of Durkheim's rule allows only one explanation of any social phenomenon: it is there because the actors concerned were brought up to do or believe what they do or believe. Since all factors influencing social life operate on and through individuals, any factors other than the action of the socializing agents are banned from consideration, as their effects arise 'within the individual consciousness.'² But social anthropologists, of course, do postulate the operation of other more interesting factors. And this confirms the suspicion that they use Durkheim's definition not as a basis of a consistent demarcation rule, but as a mere 'keep out' sign against all attempts at explanation other than those currently in fashion.

For Radcliffe-Brown, the favoured pattern was what came to be called 'functional' or 'sociological' explanation. His version of Durkheimian theory laid down that a belief, activity or institution was 'sociologically explained' when it had been shown to contribute to the harmony and integration of the total society. Any other pattern of explanation had Durkheim's rule invoked against it and was condemned as 'psychological.' 'Functional explanation' had an intrinsic appeal for the isolationists, since the narrow circularity of its argument provided a splendid defence against intruders. The working of a total society was explained in terms of the interaction of its parts, and the parts were then 'explained' in terms of the contribution which they made to the working of the whole. The whole system was magnificent in its impregnability.

The restricted horizon imposed by Radcliffe-Brown's doctrines was bound to provoke a reaction from at least some of the social anthropologists themselves. Both Evans-Pritchard and Forde, in their various ways, made important early attempts to break out of the vicious circle.³ Evans-Pritchard played down the explanatory value of 'social function,' and laid greater emphasis on the extent to which even so-called 'primitive' societies acted in the light of beliefs which followed as rational deductions from a limited number of major premises.⁴ At a more practical level, Forde drew attention to the fact that many variables of lineage organization could be interpreted as rational adaptations to the environmental situation.⁵ Both of these approaches involved throwing the burden of explanation from 'social function' on to 'reason' or 'purpose.' But although Evans-Pritchard and Forde consistently encouraged their students along these lines, many of their contemporaries continued entranced by the cosy casuistries of 'functional explanation,' and remained so for another ten years.

In the mid nineteen-fifties, however, exposure of social anthro-

pologists to changing and conflict-ridden societies brought a far more widespread disillusion with Radcliffe-Brown's approach. A general tendency to social equilibrium and harmony was an implicit major premise without which a demonstration of 'social function' could hardly be regarded as explanatory; and the new dimensions of field experience in fact showed this major premise to be invalid. Today a few devotees of the old approach cling on—but only by a staggering feat of mental gymnastics whereby all conflict is assumed to have an ultimate integrating function. As for the rest, they have undergone what Dr. Pocock has called 'a shift from function to meaning' (Pocock, 1961).

Now, instead of trying to explain social phenomena in terms of their 'social functions,' social anthropologists search for explanations in terms of 'meaning,' 'purpose' and 'reason.' Elaborate analyses of the socially standardized meanings of myths, rituals and ceremonials are fashionable. Belief systems are shown as deductive elaborations of small numbers of mutually consistent first premises. A whole gamut of social forms are shown as 'reasonable' in the light of the quest for subsistence, the struggle for power, and other purposes which those involved are supposed to have. This approach, of course, is far more illuminating than its predecessor when one comes to deal with social change. Thus assuming certain constant ends such as subsistence and power, plus certain limiting environmental and social conditions, a great variety of activities and social organization can be shown as 'rational.' Now if the limiting conditions change—for instance through a decrease in land supply or a Government imposition of new settlement conditions—ensuing social changes can be shown as 'reasonable' changes of instruments for accomplishing the constant ends. Obviously, this is a great improvement on 'functional explanation.'

Despite this explanatory advance, however, most social anthropologists still cling to the old Durkheimian demarcation of 'social facts.' And as happened in the Radcliffe-Brown era, they still waive the demarcation in favour of their own approach whilst applying it to condemn most others as 'psychology.' Now, however, the meaning of this latter term has undergone a significant shift. Instead of referring to any line of explanation other than the 'social-functional,' it has come to stand for explanation in terms of non-rational factors as opposed to 'reason.'

This growing emphasis on 'reason' and 'subjective meaning' has in fact made some of the younger generation uneasy about the Durkheimian ban on studying events arising 'within the individual consciousness.' Some recognize that if consistently used, it would forbid any interesting line of interpretation whatsoever; and some even advocate scrapping it.

At the moment, the consequences of this dissatisfaction are not altogether clear. It could be the prelude to a more open-minded era in which psychological and other explanations are drawn upon as and when they are found useful. On the other hand, some recent signs and portents suggest that those who are dissatisfied with the old Durkheimian ideas may be searching for a new philosophical justification for drawing the boundary of social anthropology at the termini of explanations in terms of 'meaning' and 'reason.' Here, I am thinking among other things of the friendly reception given to the work of the philosopher Peter Winch by some younger anthropologists such as Pocock (Pocock, 1961).

In a previous article (Horton, 1961), I have criticized the basic assumptions of Winch's *Idea of a Social Science* at some length; so I won't bore the reader with repetition. Suffice it here to spotlight Winch's main thesis that a conceptual framework organized around the key ideas of 'meaning,' 'reason' and 'purpose' is the only one appropriate to the study of social man. According to Winch, a framework based on causal concepts is quite inadmissible. Now

he argues conclusively enough that individual statements featuring the concepts of 'meaning', 'reason' and 'purpose' cannot be directly translated into statements where these concepts are replaced by others implying 'cause'. Apart from anything else, a cause can be 'thought apart' from its effect in a way that a purpose or reason can never be thought apart from its associated activity: it makes perfectly good sense to talk of replacing one cause by another in order to produce a constant effect; but if one purpose or one reason is replaced by another, the associated activity must by definition have changed as well. Hence the two sets of concepts have utterly contrasted logics; and direct translation between them can never be possible. However, none of this succeeds in proving Winch's main contention, which is that the total conceptual framework that we currently use for thinking about social man can in no circumstances be replaced by a different total framework featuring only causal concepts. This is a matter that remains open to trial.

As I admitted in my article, the likelihood of any such total replacement is at present rather remote; so one can hardly criticize anthropologists for being uninterested in it. But there is an obvious intermediate situation which all the argument about the impossibility of direct translation has been allowed to obscure. It is quite simply this: a purpose may not itself be a species of cause; but there is nothing illogical about searching for the cause of someone's behaviour being dominated by one purpose rather than another. An anthropologist may succeed in displaying an enormous area of activity and belief as 'reasonable' in the light of a small number of underlying purposes and premises which he assumes to be operative in the population which he is concerned with. But at some point he will come up against purposes and premises which are 'ultimate' in the sense that, for the actors who hold them, they have no further 'rational' justification. By definition, such ultimate purposes and premises cannot be further explained in terms of 'reason'; and any further interpretation must be one that shows them as the effects of certain causes. At this point, the currently fashionable line of explanation in social anthropology is naturally complemented by the approach of the psychologists—especially those of the American culture-and-personality school.

It is no use taking the common line that the culture-and-personality theorists assign all sorts of unlikely causes to social activities and aims, when their proper explanation is simply that they have been handed down to the present population by its socializing agents. For when consistently used, as we have seen, this counter eliminates even the kinds of explanation used by social anthropologists. And in any case, socialization works alongside other factors, which it may either reinforce or oppose. Hence to say that infantile weaning trauma is an important contributory cause of a belief that all one's neighbours are potential sorcerers is quite compatible with accepting that the people who hold this belief were brought up to hold it. And it is only the former statement that gets us any nearer understanding why one culture differs from others. In short, there seems no valid reason why social anthropologists should continue their boycott of psychology; for at least one important kind of psychological explanation begins at just the point where the anthropologists leave off.

At this point, the social anthropologist may admit that his philosophizing is so much smokescreen for a further exercise in boundary-drawing. At the same time, he is likely to fall back on the durable commonsense plea that 'he must stop somewhere.' He is likely to protest that his current programme, of interpreting a great variety of beliefs and activities as 'reasonable' in the light of certain ultimate premises and purposes, gives him all the work that he can usefully be expected to undertake.

At first glance, this argument seems irrefutable. Nevertheless,

the currently fashionable pattern of explanation has an Achilles heel that social anthropology may be able to protect only with outside help from the psychologists; and this lies in its attitude to the 'ultimate purposes' which give its explanatory 'reasons' their rationale. Social anthropologists' assumptions about ultimate purposes are seldom made explicit; but I would say that there is a widespread assumption of a universal 'human nature' in which a number of ultimate purposes stand in a fixed order of priority. Now where different people start from different hidden assumptions about this 'human nature,' we have all the ingredients of chronically insoluble dispute. A good illustration of what can happen is the long-standing difference of opinion between Fortes and Leach in the sphere of kinship theory. Though Leach might disagree,⁶ I very much doubt whether he and Fortes differ greatly about what sort of existence 'society' enjoys. Nor, though reading Leach might lead one to think so, is there evidence that Fortes ignores the possibility of lineage organization being rationally adapted to its environment.⁷ Where the real difference clearly lies is in assumptions about 'human nature.' Here, in marked contrast with Leach, Fortes believes that the filio-parental situation generates a cluster of ultimate purposes of such high priority that the struggle to fulfil them often involves overriding considerations of what is maximally efficient in matters of subsistence and the quest for power. This difference is the one that leads him to organize his analysis around filio-parental values whilst Leach organizes his around the quest for subsistence and power.⁸

Here is where social anthropologists would do well to come to terms with psychologists in general, and with the culture-and-personality school in particular. For these are the people explicitly preoccupied with the question of whether ultimate purposes vary, and with the possible causes of such variation. True, their concentration on child-training factors may well turn out to be excessive; and the impact of his social situation on the adult member of a culture may prove to be an equally crucial causal determinant of his ultimate purposes and their order of priority.⁹ But whether at present it is largely right or wrong in detail, culture-and-personality theorizing is anything but irrelevant to the social anthropologist; for unless he takes account of its thinking on the subject of these 'ultimates,' he is doomed to build up his own body of theory on shifting sands.

Now here I am not saying that the social anthropologist should go to the psychologist cap in hand. On the contrary, the latter's approach to culture is full of just the sort of *naïveté* which the anthropologist is well equipped to clear away. Perhaps the most prevalent form of *naïveté* is the psychologist's readiness to accept certain obvious purposes and attitudes as ultimate, and to search at once for their causes. The social anthropologist, in many cases, would point out that these purposes and attitudes had 'reasons.' That is, he would show that they were not really ultimate, but on the contrary were rationally justified by other purposes and attitudes lying beyond them.

Let us look at a simple example of this sort of dispute. The Ibo people of Eastern Nigeria have become renowned in recent years for the value they set on aggressive competition, the struggle for achievement, and the willingness to explore new avenues of power and status. A culture-and-personality theorist, whom I talked to about them, took this value as an obvious 'ultimate,' to be interpreted as the effect of certain causes—possibly in the realm of child-training. As a social anthropologist, I was suspicious of this. I pointed to the fact that over much of Iboland there is acute land shortage, that anxious parents quite 'reasonably' encourage their children to struggle for a school success that will fit them for some career other than farming, and that when the children grow up, their own 'reason' tells them that their only hope of a comfortable existence lies in continuing the struggle in outside

trade or in a job in Government or the big commercial firms. To back up this interpretation, I pointed to the fact that in pockets of adequate land supply like Nike and Abakaliki, where everyone can still get along comfortably on a farming career, this syndrome of aggressive competition and readiness to exploit new avenues of advancement is not at all obvious. As the result of such a critique, the 'ultimate' character of these well-known Ibo values and attitudes evaporates. The critique, of course, does not remove the problem of 'ultimates'; but it does show that the problem may have to be pushed further back than the psychologist would often recognize.

This of course is a relatively mild example of psychological naïveté and its correction. One can find some far more glaring examples if one looks at British psycho-analytical ventures into the cultural field. Think for instance of Strachey's *Unconscious Motives of War* (Strachey, 1957), which treats bellicosity as an ultimate end, and rides roughshod over centuries of political and economic analysis of peoples' 'reasons' for making war. Or think of Stokes's *Greek Culture and the Ego*, which deals with the birth of science in terms that make no reference to social organization, economy or geography (Stokes, 1958).

I single out British psychological ventures into the cultural field because their degree of naïveté seems far higher than that of the better American writers such as Erikson, Kardiner, Fromm, and Marvin Opler. America naturally has its diehard reactionaries in the psycho-analytical fraternity; but the writers whom I have mentioned have an anthropological sophistication which seems sadly lacking among most of their English colleagues. Nor is the English deficiency surprising, for in this country the Durkheimian heritage has cut off social anthropologists from any form of academic communication with psychologists—to the detriment of both parties. In America, on the other hand, the anthropologists have always been in some degree of communication with psychology. Hence they tend to be more sophisticated in their assumptions about ultimate purposes and attitudes. Conversely, their opposite numbers in psychology have an awareness of the factors of 'reason,' history and tradition which is notably absent among most of their English colleagues.

The moral of all this is clear. The work of social anthropologists and psychologists is not to be separated by any dogmatic philosophizing. The two approaches to social man are not 'logically incompatible,' 'on different levels of abstraction,' or anything else. On the contrary, one important line of psychological explanation takes up at just the point where the social anthropologist stops. More than this, social anthropology and psychology have a serious need of one another: for, as we have seen here, the explanatory programme of each rests on certain assumptions to which only the other has given serious thought.

In this paper, I have ignored a welter of disputes about how to describe social phenomena. On the assumption that all useful modes of description must flow from some body of theory, I have tried to cut straight through to problems of explanation. Having outlined how social anthropologists currently set about explaining social phenomena, I have drawn attention to the fact that their ideas can only be fully useful when complemented by psychological theory. If such a rapprochement ever develops, we should see a body of anthropological theory based on the assumption of three sets of forces working alongside each other—sometimes in harmony and sometimes in opposition. These three sets of forces would comprise (1) traditional values explicitly passed on by accredited socializing agents, (2) 'reason' and (3) those causal factors that set and change the ultimate purposes which 'reason' strives to fulfil. If this scheme were ever seriously applied, my guess is that people would soon cease to worry very much about the boundaries that divide social anthropology from psychology.

Perhaps even the vexing problem of society's relation to the individual would quietly fade away!

Notes

¹ Historical explanations were, of course, discouraged. But this seems to have been largely due to the fact that anthropologists of the time were dealing with societies whose past was a matter of extreme conjecture.

² A similar criticism of Durkheim's definition has recently been made by Dr. Pocock (Pocock, 1961; see MAN, 1962, 265). As will be obvious both in my review of that book and later on in this paper, I agree with the author in most of his criticisms of Radcliffe-Brown; but to me his book smacks of a new and equally harmful attempt at boundary-drawing.

³ Malinowski trainees like Firth and Richards retained a wider perspective throughout this period; but they worked rather separately from the Radcliffe-Brown group, and did not present them with any frontal challenge.

⁴ See for instance his *Witchcraft, Oracles and Magic among the Azande*, Oxford, 1937.

⁵ See his *The Anthropological Approach to Social Science*, 1959.

⁶ In the concluding chapter of Leach's *Pul Eliya* (Leach, 1961), Fortes is lumped with other 'structuralist' anthropologists, and with them gets criticized for believing that society is a real 'thing.'

⁷ Fortes's well-known essay on lineage organization (Fortes, 1953) contains plenty of indications of his awareness in this direction.

⁸ It is interesting to see that in his more recent reflections on Tallensi beliefs and values (Fortes, 1959 and 1961), Professor Fortes appears to be groping slowly towards an acceptable way of harnessing psychology in the service of anthropological explanation.

⁹ On this question, see a critique of the culture-and-personality approach by the psychologist Orlansky (Orlansky, 1949).

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Horniman Museum Lectures, Winter, 1963

7 Among the illustrated lectures of interest to anthropologists to be held at the Horniman Museum, Forest Hill, London, S.E.23, on Saturday afternoons at 3.30 p.m. in the first quarter of 1963 are the following: 26 January, G. de G. Sieveking, 'Upper Palaeolithic Cave Paintings in Europe'; 16 February, F. G. Carr, 'From Carrack to Cutty Sark'; 23 February, A. H. Christie, 'Looking at Oriental Art'; 2 March, Dr. M. Sullivan, 'Chinese Painting'; 9 March, M. Lyall-Watson, 'Animal Behaviour in Zoos.'

The Society for Folk Life Studies, Annual Conference, 1962

8 The second annual conference of the Society for Folk Life Studies was held at the University of Reading from 7 to 9 September, 1962. The meeting began with a lecture on 'The Study of Folk Life from a Swedish Standpoint' by Professor Sigurd Erixon, and the remainder of the conference was devoted to a consideration of folk-life studies

in relation to other disciplines, among the speakers being Dr. R. B. Wood-Jones, Mr. Basil Megaw, Dr. Ronald Buchanan and Mr. David Murison. Plans were reported to publish the first volume of the society's new journal, *Folk Life*, edited by Stewart Sanderson, early in 1963. The annual conference in 1963 will be held at the University of Leeds.

CORRESPONDENCE

On Some Further Unconsidered Aspects of Descent. Cf. MAN, 1962, 214

9 SIR,—I am probably not alone in being puzzled by some of the assertions in Dr. Leach's recent paper. Dr. Leach wishes the term 'descent' to be used only with the meaning 'unilineal descent' protesting vehemently against any deviation from what he regards as the only 'precise anthropological definition,' namely that advocated by Rivers 40 years ago. Its use in a broader sense with modifying adjectives to indicate variant rules concerning affiliation on the basis of parentage he characterizes as 'gobbledygook' and 'taxonomic obsession.'

I would suggest that when Rivers, in a short passage in one of his lectures (*Social Organization*, p. 86), not only advocated the restriction of the term descent in anthropological usage for membership by birth of discrete groups, but also held it to be 'only of value when the group is unilateral,' he neither justified this ethnographically nor analysed the implications of such a restriction. Subsequent developments in the analysis and comparative study of kin groups have shown it to be inappropriate, and in part because it leads to the very 'proliferation of terminology' that Dr. Leach deplures.¹ Moreover Rivers was himself inconsistent in going on, in the passage referred to, to suggest that 'descent can also be used of the process by which a person becomes a member of a class' and proceeded to illustrate with cases where class status may be ascribed ambilaterally, covering up the inconsistency by a remark that in Polynesian society 'there are often complexities in the case of marriage between noble and commoner.' Since Dr. Leach likes personal examples we might ask him whether Prince Charles can or cannot be appropriately described as of royal descent.

Rivers did not consider 'unilateral' groups in relation to other discrete genealogically recruited groups, but in relation to overlapping ego-centred kindreds. Unlike Dr. Leach he may not have been in a position to recognize the existence and importance of corporate right-holding bodies in which optation was combined with kinship in determining effective membership. In any case his argument for restricting the term descent to membership in unilateral groups is by no means compelling and its adoption would separate in nomenclature forms of grouping which have significant features in common and, as Goodenough has pointed out (*Amer. Anthropol.*, Vol. LVII (1955), pp. 80-2), may be developmentally as well as functionally related. It would also involve an arbitrary and confusing separation of the meaning of such related expressions as 'descendants' or 'descended from' for which a unilateral usage, as Radcliffe-Brown appreciated when offering his working definition of 'descent,' is not likely to be adopted.

The reason why kindreds cannot properly be called descent groups is not as Rivers and apparently Dr. Leach seem to have thought, that 'descent' is not involved in their definition but because they are unbounded and unorganized and are accordingly not 'groups' in any significant structural sense. They are as Dr. Freeman (*J. R. Anthropol. Inst.*, Vol. XCI (1961), pp. 192ff.) has recently re-emphasized, social fields within which, with reference to an individual, an *ad hoc* or secondarily defined cluster of individuals may initiate some particular coordinated activity.

When there is optation with regard to the assumption of obligations and the exercise of rights in one or another organized group of kinsfolk, discrete groups are formed (e.g. the Maori *hapu* or the

Kalabari 'house' whose members are recognized as descendants of common ancestors. Here 'descent' operates in combination with other factors (e.g. decisions concerning residence, forms of marriage of ego or of ego's parents, or adoption) to determine effective as distinct from potential membership.

The range of kin groups in which corporate rights are vested is not a mere 'agglomeration,' but an intelligible field in which the nature and reasons for differences in the determinants of recruitment can and should be studied. And is this not, to use Dr. Leach's expression, part of 'what, in heaven's name, [we are] trying to find out'?

The distinction which Dr. Leach notes with reference to group membership between the potential and the realized status of a child, who later assumes obligations and exercises corresponding rights, is often highly significant, not merely for kin groups like the Samoan but for groups which are usually regarded as unilineal because the 'ideology' includes a strong unilineal element. Thus I have been able to show in some detail that, despite a continuing doctrine of patrilineal affiliation, the Yakö, to whom Dr. Leach himself refers, accepted transfer of membership at manhood to the 'patriclan' of a senior matrilineal relative or of a stepfather and that the prospect of this transfer was often indicated by prior membership of the household of that relative. Ultimately all affiliation to groups depends on the currently effective 'ideology,' i.e. on the values which determine the actions of both the new and the pre-existing members. Some are more complicated than others in the sense that several criteria may be combined or balanced one against the other.

There is moreover evidence from comparative ethnography of changes from unilineal to optative patterns and *vice versa*. For the former we can refer to the change from the patrilineage to the 'house' among the Ijo. And Goodenough has offered a stimulating hypothesis to account for variations in composition and recruitment to Oceanian groups on the assumption of divergent changes in residence patterns leading to shifts from ambilineal to patrilineal and to matrilineal affiliation. Whether substantiated or not his views point to the need to consider developmental relations between unilineal and non-unilineal patterns both as a general problem and among culturally related societies who differ in these respects. Such studies are not facilitated but obscured by attempts to dichotomize the terminology into descent and some other category of group.

Dr. Leach appears to be prepared to use the term 'kin groups' for non-unilineal groupings (p. 132, col. 1), e.g. the Samoan groups, but he does not meet Radcliffe-Brown's point that in accepted usage the notion of descent with reference to the individual is coterminous with ascendent kinship. Dr. Leach and his Cambridge colleagues have found it useful to use the term filiation for the child-parent relationship, but where filiation carries kin-group membership he writes of 'descent from' that parent (p. 132, col. 2), the term 'complementary filiation' being used for the link with the parent through whom no group membership is implemented. He later tells us that Cambridge anthropologists wish to distinguish 'descent' as 'a set of precisely designated relations' from 'filiation' as 'relations in which option may be expressed.' But in some societies 'descent' (as defined in these terms), depends on the 'option' that is exercised. In fact societies differ along a continuum as to the degree of rigidity and consistency with which one of the two

available filiations is selected for kin-group membership. And since the term descent in any sense may, for each new generation, relate to either mode of filiation (according to the relevant doctrine or *de facto* bias in the society), there are no grounds for restricting it beyond the concept of ascendant kinship.

Here it is only necessary to point out that the filiation which decides 'descent' in the sense of membership of a discrete group of kin is in many societies not uniformly or irrevocably determined. It can depend on prior decisions of (or on behalf of) the parents, e.g. marriage with or without the husband's genitric rights or residence and/or land-use in the husband's or the wife's group. It can depend on decision by or on behalf of an individual when entering adult status, for example, concerning the form of his marriage or the group selected for taking up rights and obligations of residence and/or land-use. In some cases it can also, like Dr. Leach's nationality, although he writes as if he were unaware of the fact, be changed later in life.

Since Dr. Leach himself postulates that in all viable systems there must be 'an area where the individual is free to make choices, so as to manipulate the system to his own advantage,' he can scarcely refuse to recognize that membership of a 'descent' group may be one of these. Of the Yakö he writes that 'in issues affecting land rights the individual can manipulate the system through filiation to his mother's patrilineage' (p. 133, col. 2).¹ But he omits to make clear that this is done by transferring membership from the natal patrilineage to another so that in his terminology filiation is transformed into descent by nullifying the natal expectation of patrilineal affiliation to the father's patrilineage. An analysis of recruitment to the Yakö *yepun* (patrilineal) groups shows that over recent generations 10 to 20 per cent. of members have not been affiliated patrilineally, that only a minority claim unbroken patrilineal descent from the apical ancestor of a lineage and that patrilineal ties are not claimed between all the lineal ancestors within a 'clan.' If we accept the restrictions on which Dr. Leach would insist, the Yakö *yepun*, although they are discrete and non-overlapping and, despite a patrilineal 'ideology,' are not (definitively or statistically) descent groups. He would appear, however, to allow them to be called kin groups.

Whether the adjective 'kin' or 'descent' is preferred does not concern me overmuch so long as neither is arbitrarily restricted in meaning to exclude some and not all forms within a meaningful category of organized and corporate groupings. There would seem to be two possibilities. The term descent can be used in a sense wider than that advocated by Rivers, but consistent with that adopted from common usage by Radcliffe-Brown, to refer to discrete corporate groups (i.e. those to which specific statuses, rights and obligations attach) in which an ascendant kinship link is a normal but not necessarily an exclusive condition of membership. This is linguistically a simpler procedure since it groups together types which have a significant principle of recruitment in common and allows for the current practice of distinguishing further between those which are unilineal (patri- and matri-), non-unilineal (ambi- or utro-lineal), sex-linked, etc. To follow Dr. Leach's prescription, on the other hand, would seem to require the use of the term kin group as the comprehensive term. And, unless the term descent group is then dropped altogether, a basic verbal difference has to be made between unilineal groups—descent groups, which will still need to be differentiated as patrilineal etc.—, and those which will have to be distinguished as before as non-unilineal groups. Moreover a further term or qualification will still be needed for kin groups of a more or less structured character which are not 'ancestor-based' but recruited from within the kindred of an individual on special occasions, e.g. in connexion with marriage or mortuary feasts, blood vengeance and other observances. It is not apparent that this would in any way clarify denotation, advance comprehension or reduce the proliferation of terminology. What appears to be 'gobbledygook' to Dr. Leach seems, I believe, to most anthropologists to be a reasonably systematic, clear and useful vocabulary to allow of concise distinctions within a class of social groups that is useful for purposes of reference and comparative study.

DARYLL FORDE

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Notes

¹ A little reflection will show that the outcome of the proscription which Dr. Leach demands not only would encourage the introduction of further *ad hoc* terms for various types of group that may be encountered ('ramage' as re-defined by Firth and 'sept' proposed by Davenport are recent examples), but could lead to the use of a whole corpus of native terms for each of the specific forms in which filiation was one factor of recruitment. Goodenough (*Amer. Anthropol.*, Vol. LXIII (1961), p. 1344) has also recently pointed out that more confusion and arbitrariness is likely to result from the multiplication of specific terms and their use in different senses.

² There is an error of fact in the continuation of this passage. The other manipulation referred to is through membership of a man's mother's later husband's patrilineage and not his own wife's patrilineage.

Anthropology and History. Cf. MAN, 1962, 205, 241

IO SIR,—For a reconciliation to be necessary between anthropology and history there must first have been a separation. That anthropological and historical studies were combined long before 1940 can be seen from the following examples.

In 1928 Schapera wrote on 'Economic Changes in South African Native Life' (*Africa*, Vol. I) and other topics using historical data. A chapter in my own *Primitive Economics of the New Zealand Maori* (1929) is an aspect of the 'history of social change in New Zealand' (p. 449). Robert Redfield in *Tepoztlán* (1930), especially pp. 11-30, gave much attention to the local history and stated: 'to learn as much as can be learned as to the history of the present culture of Tepoztlán is a part of any thorough study of that culture' (p. 13). F. M. Keesing in *The Menominee Indians of Wisconsin: A Study of Three Centuries of Cultural Contact and Change* (1939) gave the results of one of the most elaborate examinations of historical archives of various kinds combined with personal observation ever yet given by an anthropologist. Moreover, in 1940 Schapera published his *Traditional History of the Native Tribes of Bechuanaland Protectorate* (in Tswana). 'History' begins at home.

RAYMOND FIRTH

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The Determinants of Differential Cross-Cousin Marriage. Cf.

MAN, 1962, 47, 179, 238

II SIR,—Dr. Leach has written that my theory of differential cross-cousin marriage is entirely 'worthless' since it is, according to him, not applicable to marriage with classificatory cross-cousins. He has also suggested that I could profit by reading Rodney Needham's *Structure and Sentiment*.

It is regrettable that Dr. Leach could not have known before he wrote his letter that I had written an analysis of Needham's book ('An Analysis of Needham's Critique of the Homans and Schneider Theory,' *Southwestern Journal of Anthropology*, Winter, 1962). In that analysis it is demonstrated that my theory is applicable to marriage with both true and classificatory cross-cousins. In addition, Needham's book is shown not to be worthless but merely wrong.

I look forward to Dr. Leach's comments after he has read my paper.

Department of Anthropology and Geography, ALLAN D. COULT
University of California, Davis, Calif.

Trade-Bead Economics in Nineteenth-Century Chaggaland.

Cf. MAN, 1962, 177

I2 SIR,—Miss Harding's information on trade beads in Tanganyika is augmented in Dr. Hans Meyer's account of his ascent of Kilimanjaro, published in London in 1891. During his 1887 and 1889 expeditions to Chaggaland, Dr. Meyer found that the Chagga desired the small pink or light blue Venetian beads, whereas in Teita and Taveta, barter could only be effected with medium-sized crimson, dark blue or white beads; and the people of Ugweno and Kahe wanted the same dark blue beads required by the Masai. Such differences in taste prevailed in spite of the very close economic and cultural connexions that existed among these neighbouring tribes.

In Chagga land itself, Dr. Meyer found that the following were all valued at one twist of bead: 20 unripe bananas; 10 ripe bananas; 2 pints millet; 3 pints beans; 4 pints maize; 2 pints milk; 1 load firewood. A twist consisted of ten strings of 100 beads each, and they were shipped in bunches of ten twists.

The second barter item used by Meyer was *amerikani*—the white cotton cloth so familiar in East African trade. The following scale indicates the relative values of some other Chagga produce:

1 cow	— — — —	12 doti
1 goat	— — — —	3 doti
1 sheep	— — — —	4 doti
2 lb. of butter	— — —	5 arm lengths
1 6 lb. packet of tobacco	— — —	8 arm lengths
2 pints of honey	— — —	15 arm lengths

A doti of cloth was normally eight arm lengths,¹ but the Chagga reckoned the doti as 10 arm lengths or sufficient for a single cloak. The value of *amerikani* in terms of twists is unfortunately not clear. Meyer equates a twist with an arm length or ten twists to a 'Chagga doti,' but on p. 117 of his book, a small fowl is said to cost '2 doti = 3 twists of beads.' From my own knowledge of relative produce values in Chagga land today, I feel sure that this is a misprint which should read 'A small fowl = $\frac{1}{2}$ a doti = 3 twists.' Even in terms of dotis I am certain that at no time in Chagga history did a fowl ever equal two-thirds of a goat.

MICHAEL VON CLEMM

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Note

¹ Fingertip to elbow.

REVIEWS

GENERAL

La signification de l'art rupestre paléolithique. By A. Laming-Emperaire. Paris (Picard), 1962. Pp. 424. Price 52 N.F.

13

This volume was started in 1948, but various accidents delayed its publication until 1962. To keep abreast of the times has not been easy and mistakes do occur. Thus it is stated (p. 93) that no complete account of the important cave of the Trois Frères has appeared, but the definitive volume from the pen of the late Abbé Breuil was published in 1958. The work is divided into four parts. The last of these is especially useful. In it a complete list is given of French sites where palaeolithic art has been found together with brief summaries of what, prehistorically speaking, has been found at each locality. Dates and the names of the excavators and others who studied the sites, together with any publications, also appear. Part 1 sets the stage, describes what is being studied and deals with such problems as chronology, dating, etc. It is a pity that M. Daleau never properly published the results of his work at Pair-non-Pair, a key site. My memory of a time when I worked with him differs from the account given by the author. It is that on the cave walls are some of the earliest-style Aurignacian engravings, which were covered by the late Aurignacian layers. Middle Aurignacian man would have had to lie flat and draw at ground level. The art, therefore, must be of early Aurignacian date. Part 1 is useful and includes an interesting table with a few Carbon-14 dates, results of pollen-analyses, etc., though most of its contents can of course, be found elsewhere.

Before considering Parts 2 and 3, which are more particularly concerned with the possible reasons for the art and methods of studying them, let us imagine for a moment what life must have been like in those times before the discovery of agriculture and the domestication of animals. The climate was very cold and nature cannot have been very productive. Three main factors must have dominated the lives of those early folk—food, death and birth. The last was probably the least important; a baby is really only a nuisance until it begins to grow up! Death engenders many emotions—sorrow, fear, love, etc.—and that palaeolithic man must have realized death emotionally is shown by the fact that sometimes he practised ceremonial or careful burial. But food is an everyday need, a constant cause of worry. It is significant that most of the palaeolithic pictures in the caves are of animals which are good for food.

In Part 2, the author rightly passes lightly over the idea of art for art's sake. But does she stress enough that upper palaeolithic man must have had artistic qualities or such splendid art would never have been created? Even if, as I believe, much of the cave art had a magical significance connected with food supply, many examples in the 'home art'—i.e. engravings, etc., on bone and stone found in the prehistoric levels—may well have been 'art for art's sake.' But the engravings and paintings in deep caves where man never lived can neither have been the result of a desire to express oneself nor to decorate one's home. Frequently, too, the

drawings occur in narrow passages and places difficult of access. But if the art was a form of sympathetic magic in connexion with food supply, what does that really mean? We shall never be certain and analogy with modern primitive folk can be dangerous. Similar conditions do not always result in similar actions. Perhaps, as the author suggests, the best approach is by a detailed study of the art itself and of the emotions of human beings under stress. Such emotions can be got rid of by dancing a mimetic representation of the thing desired, as many primitive folk do today. But upper palaeolithic man was artistic, and it seems that his 'magics' took a form connected with pictorial representations. Can we hazard a guess how it worked? I suggest that we should follow the artist—medicinemans—priest into the Trois Frères. There is the masked sorcerer himself drawn at the end of the chamber high up overlooking the audience-congregation. The latter are surely in a dither, for caves are terrifying places. But the artist-priest in his 'pulpit' is in full control. He shows them that he has already slain the animals which they will be pursuing tomorrow. He inspires confidence and, as sportsmen know, confidence is half the battle when hunting. Parts 2 and 3 actually do not seem to carry the reader far, and not everything suggested will be accepted by everyone, but the problem is set forth and discussed in great detail—indeed, one must admit that it is all rather long-winded. There is much to be learnt from reading this volume: the subject of course is a fascinating one, and Part 4 is a really useful piece of compilation.

MILES C. BURKITT

Introduction to Physical Anthropology: Laboratory Manual.

By Jack Kelso and George Ewing. Boulder, Colorado (Pruett), 1962. Pp. 109

14

This is an essentially practical manual written to accompany two introductory courses in physical anthropology at the University of Colorado. The book presents 15 assignments covering such subjects as elementary human osteology and anthropometry, comparative primate anatomy, simple statistical techniques, blood-grouping procedures, the determination of sex, age and stature of skeletal remains, and the affinities of the Australopithecinae and fossil man. Each assignment is accompanied by a certain amount of factual material, but, as the authors themselves point out, this is uneven in distribution, either because of detailed treatment in the accompanying lectures or because of ample explanation in current textbooks.

The course itself is admirably comprehensive for an introductory one and many parts could with profit be incorporated into more general anthropological and archaeological curricula. It should be emphasized, however, that the use of the book in the manner intended by the authors presupposes the availability of suitable laboratory facilities.

D. R. HUGHES

Ethnosoziologie sowjetischer Völker. By Zvi Rudy. Bern (Francke), 1962. Pp. 244, 34 illus., map. Price 24.50 Swiss francs

15 Professor Rudy, of Tel Aviv, coined the self-explanatory term 'ethno-sociology,' which, however, does not seem to have found favour in the Soviet Union. In his historical survey of anthropological research he is critical of many western scholars and full of praise for the Russian 'ethnographers,' especially for those since the nineteen-thirties. He discusses the Tartars (very shortly), the artistic and individualistic community of Kubachi, the religious notions of the Evenki of Northern Siberia, and the social

and economic conditions as well as the beliefs of the 26 'small peoples' of the North. The second-hand descriptions of customs and beliefs are more vivid than the statements about their social and historical background. Readers of Ivar Paulson's *Schutzgeister und Gottheiten des Wildes* will find somewhat disappointing Professor Rudy's presentations of and conclusions on the bear cult and the various souls of man. Interesting are the remarks on *Nimah* (a Tungus collective distribution of the meat of the hunted red deer, elk and bear), and the position of women with regard to shamanism (pp. 104 ff.), domestic cults (p. 110) and tattooing (p. 194).

The illustrations are clear and helpful.

E. ETTLINGER

AFRICA

Archéologie tchadienne: Les Sao du Cameroun et du Tchad.

By Jean-Paul Lebeuf. Paris (Hermann), 1962. Pp. 147, 16 plates, 46 text figs. Price 18 N.F.

16 J. P. Lebeuf et A. Masson-Detourbet avaient donné en 1950 un premier ouvrage d'ensemble sur *La civilisation du Tchad*. Le présent travail complète ce dernier, en tenant compte des nouvelles recherches faites en particulier à Makari.

Ces fouilles furent précédées et accompagnées par des enquêtes ethnographiques détaillées, permettant d'utiles recoupements et des vérifications immédiates concernant le matériel découvert.

Le premier chapitre est consacré aux recherches archéologiques effectuées à Makari. Dix points de fouilles différents ont fourni un matériel très abondant, analysé dans le Ch. II: objets en terre cuite, en métal, verre et pierre. La technique et la fabrication des décors des poteries (températures obtenues par les potières, variétés des motifs décoratifs par impression, incision et application, engobes, dégraissants) et des objets de métal (bronze et non laiton, fer) étudiées ensuite, fournissent des données de grande valeur sur la civilisation sao.

Les recherches ethnographiques (Ch. III) concernent l'origine mythique de la ville, donne la liste des souverains, traite les questions des animaux totémiques et de l'intronisation du souverain.

Les usages et le symbolisme du matériel (Ch. IV) sont ensuite traités.

L'ensemble des découvertes permet un essai de chronologie (Ch. V):

— Sao I (Type Kréné) IX^e-XI^e siècles?

— Sao II (Type Makari, Goulfeï, Midigué, Tago, etc.) XI^e-XVI^e?

— Sao III (Derotte).

L'islamisation du pays s'étage entre le XVI^e et le XVIII^e siècle et l'abandon de certaines buttes (Tago, Midigué), de 1840 environ.

La question de la datation des pipes comme fossile directeur local post-1600 est mise en question par l'auteur (p. 130 et *Notes Africaines*, No. 93, pp. 16-17), la légende locale donnant le *Datura metel* comme antérieur au tabac.

Des index et une bibliographie complètent utilement cet ouvrage, qui fourmille de renseignements scientifiques et archéologiques de la plus grande valeur pour la connaissance du passé de la région du Tchad.

R. MAUNY

Missions Berliet Ténéré-Tchad: Documents scientifiques.

Edited by H.-J. Hugot. Paris (Arts et Métiers Graphiques), 1962. Pp. 376, 93 plates, 3 maps, text figs., bibliogs.

17 The firm of Berliet, makers of heavy transport vehicles, with factories in France and Algeria, was interested in finding new routes linking the territories south of the Sahara with the rapidly developing North African market. The Ténéré (a *tamashiq* word, meaning waterless desert) which lies between the mountains of Aïr in the west and of Tibesti in the east had not been crossed by motor transport since 1935 (by Captain Gay), except by military reconnaissance vehicles, and it seemed worth while to organize a motorized column and to attempt the complete crossing of the Ténéré from north to south as far as Lake Chad, a distance of some 3000 kilometres. At the same time, the endurance and reli-

ability of a newly designed 8-ton truck, the 'Gazelle,' could be tested under varied and exacting conditions.

Under the direction of Messrs. Maurice and Paul Berliet, this project was carried out speedily and on a generous scale. The co-operation of the Institut Français d'Afrique Noire in Dakar, the Institut de Recherches Sahariennes in Algiers, and a number of other scientific institutions was obtained and two ethnologists (H. Lhote and J. Petit), two prehistorians or proto-historians (H.-J. Hugot and R. Mauny), a geologist (A. Cornet), a zoologist (R.-M.-R. Heu), a botanist (A. Naegelé), all specialists in the Sahara, as well as several road engineers, doctors, writers, artists and photographers were invited to join the expedition. Including the technical personnel a company of over 50 men set out from Algiers on 9 November, 1959, in nine 'Gazelles,' five jeeps and one helicopter, and returned there on 7 January, 1960. A second, smaller expedition, organized on similar lines, explored another route further east from October to December, 1960. Both expeditions were self-contained and achieved a total of 25,000 km. apparently without a technical hitch.

The scientific harvest was commensurate, at least in quantity, with this great effort. Two tons of cut or polished flints and thousands of potsherds, fossils, soil samples and plant and animal specimens (including 80 species of birds) were collected and studied. The results were shown in an exhibition at the Musée de l'Homme in Paris and are here presented in this handsome publication.

The largest section is devoted to prehistoric studies of the region of which the most important are H.-J. Hugot's 'Premier aperçu sur la préhistoire' and P. Huard's 'Art rupestre.' R. Mauny contributes a short and illuminating historical survey, and J. Petit a remarkable report on the problems of nomad education which the Organisation Commune des Régions Sahariennes had asked him to undertake. P. Quezel, who accompanied the second expedition as a botanist, and C. Martinez contribute a report on the soil samples and sediments collected and the spores and pollens analysed. On the whole, the results confirmed the work carried out by these authors in other, related locations and showed that a Mediterranean flora covered the central Sahara region at least as far as 16° latitude at a time corresponding to neolithic settlements. Carbon-14 dating of 4000 to 3500 B.C. corresponds with the last phase of climatic humidity in the Sahara and rich neolithic culture deposits.

The volume is illustrated with excellent photographs, particularly valuable for the rock paintings and engravings. There is no index, but apart from a general 'Bibliographie du Ténéré,' by R. Mauny, two of the articles have bibliographies of their own: on Rock Art in the Sahara, by P. Huard, and on the Geology of the Central Sahara, by A. Cornet.

E. A. ALPORT

Rock Engravings from Driekops Eiland and Other Sites

18 South-West of Johannesburg. By Lina M. Slack. London (Centaur P.), 1962. Pp. 103, 111 plates, map. Price £8 8s.

In 1938 Mrs. Lina Slack, at the invitation of the late Professor van Riet Lowe, made copies and photographs of the extensive series of rock engravings on the farm Driekops Eiland, which lies on the south bank of the Riet River about 40 miles south-west of

Kimberley. In this volume a wide selection of Mrs. Slack's rubbings and photographs is reproduced, together with van Riet Lowe's paper on 'The Rock Engravings of Driekops Eiland' which he read at the Pan-African Congress on Prehistory in 1952 (*Actes du Congrès Panafricain de Préhistoire*, 1952, pp. 769-76).

The petroglyphs at Driekops Eiland fall into two well defined groups: a series of naturalistic engravings of humans and animals, and a second series of stylized geometrical patterns. The former includes zebra, elephant, rhinoceros, hippopotamus, etc., and these are reproduced as rubbings without any comment. The geometric patterns are published as photographs which are given captions such as, 'cosmic signs,' 'a gateway to a sanctuary,' 'a donkey bearing a tree of life,' 'writing tablet,' 'button seals,' etc. The author has obviously been influenced by the theories of Frobenius and the Abbé Breuil and she seeks parallels for these patterns with Minoan scripts and early Egyptian designs. She makes no reference to comparable engravings and paintings in Rhodesia, Nyasaland and South-West Africa, which have been fully described during the past ten years.

Among the most interesting engravings are those reproduced in Plates LXXXV and LXXXIX, which are described as prehistoric boats related to early Mediterranean types. Unfortunately the photographs of these engravings are too indistinct to allow the reader an opportunity of making his own assessment.

In the conclusion to her introduction Mrs. Slack states, 'These engravings are the work of considerable artists, perhaps men of a far more developed civilization than is generally suspected,' and the whole approach of this book is directed towards the establishment of a link with early Mediterranean cultures. Her statement should be considered together with that of Professor van Riet Lowe: 'The widespread occurrence of such stylized symbols, however significant they may appear, cannot be interpreted as being in any way linked by some process of diffusion until similar occurrences have been discovered in the vast intervening spaces. As this has not yet been done, and as it seems unlikely to be done in Africa, we must consider the possibility of independent artistic and related developments having taken place among people who had reached comparable stages of development in these far-flung regions. If the Driekops Eiland symbols have, as I suggest they have, an ideographic value, and if the engravers were responsible for the Smithfield or Wilton tools which have so often been found at and near similar sites, these stylized engravings must be comparatively recent.'

JAMES WALTON

The Music of Central Africa. By Rose Brandel. *The Hague* (Nijhoff), 1961. Pp. 272 (incl. 134 pp. music), 10 plates. Price 33.50 guilders

19

This book surveys the music of the former Belgian Congo, Ruanda-Urundi, Uganda and Tanganyika. In Part I the author briefly considers language, the concept of 'primitive' music, and then harmony, rhythm and scales as exemplified in her area. There follow chapters on types of musical occasion—ceremonial, work, dance, etc.—the analysis of the musical examples, the factors of African singing style—with some useful observations on the physiology of singing (pp. 93ff.)—and a summary of conclusions. Part II contains transcriptions of 52 musical examples, followed by seven pages of Cent-Frequency Charts.

While there is here a useful gathering-together of observations culled from many sources—a necessary step in the consolidation of ethnomusicological study—, yet there is a good deal of rather tiresome philosophizing, including many rather doubtful statements and generalizations. In particular the author is somewhat obsessed with Sumer as a source of influence in Africa.

To be fashionable nowadays—and this study is a good example—one has to make ethnomusicology very 'scientific,' clothing even simple ideas in recondite verbalism. Is it really necessary to use such terms as pathogenic, chasmatic, kinæsthetic, ethno-aesthetic, mimetic or hemitonic?

The whole book really arises from the music in Part II which consists of transcriptions of gramophone records. To transcribe African music from recordings is a procedure fraught with danger. The record can answer no questions and it is so easy to be misled by subjective reactions. Thus, while the author has clearly perceived

that, in general, African music does not fit rhythmically into a regular 'conductor's beat,' and that 'to continue beating in 2/2, 4/4, etc., regardless of the irregular groupings, can be quite ridiculous,' and also that an irregular pattern 'should be considered as a basic in itself,' all of which is well said, yet the complexities arising from this in full ensemble playing are not adequately dealt with. The *sansa* music in Ex. 49 is too utterly simple to show what *sansa* music is really like. The drumming transcripts are similarly elementary: it is impossible to extract from a record the rhythmic interplay of a full-scale drumming. Many of the songs are transcribed without the words and therefore cannot be relied upon for their accuracy. In short, this noble attempt at transcription, to serve as a basis for study, should have been made from living performers.

This dependence on recordings also vitiates the Cent-Frequency charts. To obtain reliable figures for intervals one needs to sound the notes of an instrument slowly one by one. To attempt to derive them from music going at speed is to attempt the impossible.

On the whole, therefore, while there is useful material here and many useful book references, one cannot say that the book makes any significant advance in our knowledge of African music. At the same time it does give us a picture of the sort of music obtaining in the territories under review.

A. M. JONES

Plantation and Village in the Cameroons. By Edwin Ardener, Shirley Ardener and W. A. Warmington. London (O.U.P. for Nigerian Inst. of Soc. and Econ. Res.), 1960. Pp. xxxvi, 435, 6 maps. Price £2 10s.

20

This study deals with the plantations in the Victoria and Kumba Divisions of the Southern Cameroons. In 1946, these plantations—formerly consisting of German properties—were declared to be native lands, and were then organized into the Cameroons Development Corporation. Two private companies also operate plantations in the Southern Cameroons, but the C.D.C. is predominant in the zone which was studied.

Plantation and Village in the Cameroons, appropriately subtitled 'Some Economic and Social Studies,' consists of three main parts: I, Employees and Plantation Life; II, The Home Areas; and III, Plantations and People of the Victoria Division. Mr. and Mrs. Ardener between them contributed ten of the book's 17 chapters; Mr. Warmington has written six; and Dr. M. J. Ruel prepared one of the two chapters on migration in two Southern Cameroons tribes. Mr. P. Morton-Williams collected some information on diet among plantation workers, reported in Chapter VII and in Appendix D. The book is thus a composite effort; only in its final chapter, on indigenous attitudes among the Victoria Division peoples, is a brief synthesis attempted.

The materials which make up this work are sociological in character, based on surveys conducted by the authors over various periods between 1953 and the start of 1955. The findings were intended to answer the need for information on plantation labour, noted both by the Cameroons Development Corporation and the labour union of that Corporation; as such, the book has surely proved of considerable practical usefulness. The subjects covered include the background of plantation labour, conditions of employment, camp life, migration, nutrition and diet, and the like. Especially satisfactory is Edwin Ardener's four-chapter section (Part III) on the Victoria Division. But the relative lack of unity which marks the book's other two parts is not so much the fault of the authors as of the nature of the materials. On p. viii it is stated that: 'The report was not designed in the first place as an academic study. It was intended to bring together a great deal of scattered information, to test and extend it by new investigations, and present it, with some recommendations, in the kind of detail required by the management and administration.'

A detailed examination of the findings would require a very lengthy review indeed, and cannot be made here. But attention must be called emphatically to the brief and useful description of the sampling procedure (pp. 347-52), particularly for anyone interested in field work with 'rural proletarians.' The book makes abundantly clear that cross-cultural generalizations about plantation labourers must be advanced with care, and substantiated by careful field work.

S. W. MINTZ

ON ZEN MARXISM: FILIATION AND ALLIANCE

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21 At the outset of this contribution,¹ I should hasten to assure the reader that I have no intention to add to the exchanges that have appeared in the pages of MAN between the proponents of 'complementary filiation' and 'alliance.'² Rather I wish to note that beneath the arguments over the interpretation of the minutiae of systems of descent and marriage, there is a quite fundamental methodological issue that transcends in importance the subject matter of the argument: this is, quite simply, that Lévi-Strauss and his followers have taken a significant step away from the tradition of positivism, which is almost the equivalent of social science today, and reinstated dialectical philosophy as a method in social inquiry. I hesitate to mention this because it should be obvious to most scholars, and I do so only because none of the plethora of learned exegeses on the work of Lévi-Strauss has seen fit to state it. It would be most discouraging if anthropologists had not detected this very explicit component of Lévi-Strauss's thinking; it is even more discouraging to contemplate that, realizing it, they have still seen the analysis of Murugin kinship to be the more interesting issue. The present paper aims for brevity, and I wish only to raise the point and leave it to someone better trained in logic to examine the premises involved more closely.

Given the nature of Lévi-Strauss's anthropological work, it comes as a bit of a surprise to read in *Tristes Tropiques* of his intellectual debt to Marx.³ When one thinks of a Marxist scholar, he usually conjures an image of a person having a strong historical orientation with special emphasis on the work process and its culmination in the contradictions of class society: this surely does not describe Lévi-Strauss or any of his followers. John Peristiany also recognizes that Lévi-Strauss is hardly a Marxist in the traditional sense and prefers to call him a 'Marxotrope' because he orients to Marx and draws sustenance from him, though he does not emulate his work.⁴ I think, however, that it is to Hegel and not to Marx that Lévi-Strauss owes his greatest intellectual debt, for in all of the passages of his works where the influence of Marx appears most obvious the thinking in question derives first from Hegel—and not from Hegel's view of history but from his ontology, of which history is but a part. As is well known, it is axiomatic in the dialectic that the perceived reality of the positivists is by definition false inasmuch as reality is bestowed by the negativity of the object under consideration, its 'Non-Being.' As Hegel summarizes it: 'Finite things are; but their relation to themselves is that they are related to something negative, and in this relation send themselves on beyond themselves and their Being.'⁵ It is this notion of a Reality beyond reality, the very definition of dialectics, that underlies Lévi-Strauss's rather puzzling treatment of social structure in *Anthropology Today* as con-

tained in his enigmatic statement: 'The term "social structure" has nothing to do with empirical reality but with models that are built up after it.'⁶ Granted that his article does not predicate a dialectic transformation of one level of reality into another through which 'empirical reality' is proved false, his treatment of Bororo social structure is more instructive in this regard. Lévi-Strauss describes the *apparent* social structure of the Bororo as one of symmetry between two moieties both in the use of space and in social relations. He then goes on to analyse out of these relations what he calls 'the actual situation'⁷ which is that of an asymmetric society stratified into three endogamic classes. The essential falseness of the perceived reality is stressed by him in the following passage: 'Three societies which, all unknowingly, remain forever distinct and isolated, each imprisoned within its own vainglory, dissimulated even from itself by misleading institutions; with the result that each of the three is the unwitting victim of artificialities whose purpose it can no longer discover.'⁸ His method of selection of which is the 'true' social structure as opposed to the 'false' one is then a simple exercise in dialectics, for the moiety system presents itself to common sense as reality and thereby demonstrates its unreality.

It is really not necessary to tease these inferences out of his ethnography, for Lévi-Strauss quite willingly tells us what he is doing:

At a different level of reality, Marxism seemed to me to proceed in the same way as geology and psycho-analysis (in the sense in which its founder understood it). All three showed that understanding consists in the reduction of one level of reality to another; that true reality is never the more obvious of realities, and that its nature is already apparent in the care which it takes to evade our detection. In all these cases the problem is the same: the relation, that is to say, between reason and sense-perception; and the goal we are looking for is also the same: a sort of *super-rationalism* [Lévi-Strauss's italics] in which sense-perceptions will be integrated into reasoning and yet lose none of their properties.⁹

To even the most cursory student of Hegel, and here I include myself, the above words echo Hegel's concept of freedom and the historic process that culminates in the unification of reason and truth. This is even more manifest in some of his concluding words in *Tristes Tropiques* in which Lévi-Strauss indulges himself in the fascinating commentary on Buddha which inspired my title:

When we make an effort to understand, we destroy the object of our attachment, substituting another whose nature is quite different. That other object requires of us another effort, which in turn destroys the second object and substitutes a third—and so on until we reach the only enduring Presence, which is that in which all distinction between meaning and the absence of meaning disappears; and it is from that Presence that we started in the first place.¹⁰

It is probably at this point that Lévi-Strauss comes closest to Marx, if we are to read Marx's unification of history and reason in the classless society as Lévi-Strauss's Presence. But they meet only at the culmination of the dialectic process, at its own negation, and they arrive by different paths: Marx by History and Lévi-Strauss by Reason.

Nowhere are Lévi-Strauss's affinities to Hegel rather than Marx clearer than in the fact, as suggested above, that both the former are concerned with Being and Reason, while the latter has abstracted the dialectic out of the realm of ontology and made it history, itself. As Herbert Marcuse has said of the process by which Marx turned Hegel upside-down:

However, the social world [to Marx] becomes a negative totality [Hegel's Truth] only in the process of an abstraction [Marcuse's italics], which is imposed upon the dialectic method by its subject matter, capitalist society. We may even say that the abstraction is capitalism's own work, and that the Marxian method only follows this process.¹¹

It is no doubt this view of Marx, that the dialectic process is empirical reality that gives a positivistic tinge to his writings; certainly, few of his followers could be called dialecticians, though this is quite possibly because they never grasped the meaning of the dialectic in the first place. It was only by imputing concreteness to the dialectical processes of history that Marx was able to escape the Hegelian metaphysic, and to Marx the proper realm of the dialectic was history and not ontology. Despite the efforts of several vulgarizers of Marx, who illustrated the dialectic to working-men's study groups by reference to how coal turns to diamonds and water to steam, Marx did not generalize the dialectic to be a process pervading the universe. But Hegel did, for the dialectic was reason and reason was his universe.

In view of this, it is interesting that Lévi-Strauss has restated the notion that human thought is binary and oppositional in nature, and, by so doing, has extended the dialectic to encompass the totality of the human situation. Such items as the remarkable (Edipal dream that he reports in *Les structures élémentaires de la parenté*, in which a child fantasizes a moiety system, complete with exogamy and ideological antithesis, may lead some readers to believe that Lévi-Strauss sees the structure of society to follow from the structure of thought and to be determined by it.¹² That this self-proclaimed student of Marx is really an idealist seems more manifest in his provocative article on *The Structural Analysis of Myth*, in which he goes beyond the simple oppositional nature of thought and derives the syntheses that proceed from it.¹³ But as Lévi-Strauss himself cautions us, we should not trust common-sense perceptions, for this is not an idealism in the usual deterministic sense. Rather, he follows the dialectician's first premise—that logic and 'reality' follow the same laws. Lévi-Strauss has not got himself caught in the chicken-egg question, nor should his readers. His closing paragraphs in Chapter 7 of the *Structures* show clearly that though a little boy may dream a moiety, he can also repress such dreams in a society that 'does not use bipolar structures to translate [my italics] the phenomena of antagonism and reciprocity.'¹⁴ But that

these phenomena are the 'real' reality of society seems unquestionable to him, despite the absence of a deterministic scheme.

To summarize, that Lévi-Strauss is a dialectician of sorts is indisputable, but given his concern with ontology and thought, and in view of his relative neglect of history, I do not believe that he can even be called a Marxotrope. These philosophic affinities are all the more interesting because Lévi-Strauss is widely accepted as in the direct and pure line of descent from Durkheim and Mauss, who are, in turn, the intellectual offspring of the founder of the French school of positivism. Can one be a positivist and a dialectician at one and the same time? This is a rather difficult feat, for positivism, the positive definition of reality, is the philosophic obverse of dialectics, or the negative definition of reality; nineteenth-century positivism, nourished by the empiricist tradition in Britain, was in part a reaction to Hegelian metaphysics. Perhaps Lévi-Strauss and his followers have accomplished the most remarkable intellectual exercise of our recent history and have resolved the contradictions between the two? I would reject this notion and suggest only that Lévi-Strauss, like all of us, is a bit of an eclectic and that he maintains this eclecticism by remaining a positivist in his delineation of the facts and resorting to dialectics only when doing structural analysis; it is very difficult to maintain a dialectic mode of thought except when dealing with pure metaphysics. It is significant for our present purposes, however, that it is the Dialectician Lévi-Strauss who has excited the greatest comment and not the Positivist. While the latter edifies us with workmanlike reports upon the Nambikuara and other unfortunates of the Brazilian backlands, the former leads us off into exciting and unique inquiries into the structural congruences of society, thought and language and tries to reach behind the facades of our limited understandings.

I believe that this will be a healthy and invigorating intrusion in a discipline that is notable for a lack of concern with its first premises. It is instructive to go beyond the positivists and ask not just what a social relationship is, but what it is not and what is contradictory of it, as some of his followers have done. The reintroduction of Reason is a momentous event in social science, and I find it far more interesting than the question of whether one can be (or should be) forced to marry his patrilineal cross cousin. But if I have identified the genre accurately, I should also caution the more mathematically minded of these Neo-Hegelians that it was Hegel himself who said:

When mathematical categories are used to determine something bearing upon the method or content of philosophic science [read structural analysis], such a procedure proves its preposterous nature chiefly herein, that, insofar as mathematical formulae mean thoughts and conceptual distinctions, such meaning must first report, determine and justify itself in philosophy. . . . The mere employment of such borrowed forms is in any case an external and superficial procedure: a knowledge of their worth and of their meaning should precede their use; but such knowledge results only from conceptual contemplation, and not from the authority that mathematics gives them.¹⁵

Notes

¹ I am indebted to my colleagues Drs. Ethel Albert, Dell Hymes and John Rowe and to Mr. Tom Lanagan for their valuable comments. They are not responsible for the opinions expressed herein, but they contributed generously and critically to a refinement of the presentation.

² I refer here, of course, to the debate between Professor Fortes ('Descent, Filiation and Affinity: A Rejoinder to Dr. Leach,' *MAN*, 1959, 309, 331) and Dr. Leach ('Aspects of Bridewealth and Stability among the Kachin and Lakher,' *MAN*, 1957, 59). It is, however, in Dr. Leach's essay 'Rethinking Anthropology' (*Rethinking Anthropology*, L.S.E. Monogs. on Soc. Anthropol., No. 22, 1961, pp. 1-27), in which he delineates the essentially oppositional nature of incorporation and alliance, that the issue is most clearly drawn.

³ Claude Lévi-Strauss, *Tristes Tropiques* (translated by John Russell), New York (Criterion Books), 1961.

⁴ John Peristiany, 'Social Anatomy,' *Times Lit. Supp.*, 22 February, 1957, pp. 105-7. It is worth noting that in this review of *Tristes Tropiques*, Peristiany refers to Lévi-Strauss's use of models and their relations to events as 'one of the architraves of Lévi-Straussian thought showing him to be in the great stream of the French positivist sociological tradition'; I use this same aspect of Lévi-Strauss to show that he deviates sharply from this tradition. At a later point in his review, however, Peristiany observes Lévi-Strauss's radical

departure from the Durkheimian treatment of religion and, I would add to his comments, from Durkheim's canons as to 'what is a social fact.'

⁵ Friedrich Hegel, *Science of Logic* (translated by W. H. Johnson and L. G. Struthers), 2 vols., New York (Macmillan), 1929, Vol. I, p. 142.

⁶ Lévi-Strauss, 'Social Structure,' in *Anthropology Today* (edited by A. L. Kroeber), Chicago (U.P.), 1953, p. 525.

⁷ Lévi-Strauss, 1961, p. 231.

⁸ *Ibid.*

⁹ *Ibid.*, p. 61.

¹⁰ *Ibid.*, p. 394.

¹¹ Herbert Marcuse, *Reason and Revolution: Hegel and the Rise of Social Theory*, London and New York (O.U.P.), 1941, p. 313. I have drawn heavily from this work, as those acquainted with it will immediately understand.

¹² Lévi-Strauss, *Les structures élémentaires de la parenté*, Paris (P.U.F.), 1949, p. 124.

¹³ Lévi-Strauss, 'The Structural Study of Myth,' in *Myth* (edited by T. Sebeok), University of Indiana Press, Bloomington, 1958, pp. 50-66.

¹⁴ Lévi-Strauss, 1949, p. 124.

¹⁵ Hegel, 1929, p. 231.

THE INCIDENCE OF SICKLE-CELL TRAIT IN BASTAR, II*

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22 As indicated by the presence of sickle-cell trait in the Dorla and the Dhurwa (Negi, 1962), further investigations amongst the various other groups of Bastar were carried out to ascertain the presence and distribution of the trait. The present communication undertakes to report the incidence of sickle-cell trait in three more groups of Bastar, studied by me, during the period November, 1959, to April, 1960.

Material and Method

The three groups included in this study are the Bhatra, the Muria and the Mahra. Of the three, the first two are tribal groups, whereas the Mahra belong to the low-caste group.

The Bhatra in Bastar inhabit the north-eastern plains of Jagdalpur Tahsil and are but a section of a larger population which extends into the adjacent district of Koraput in Orissa. The Bhatra sample of present study is mostly confined to Bastar only, and comprises three sub-groups, the sub-grouping being based upon a sort of social hierarchy, which is in existence amongst the Bastar Bhatra (Tandon, 1959). In order of ranking, the three sub-groups are: (1) Bade Bhatra, (2) Manjhela Bhatra and (3) San Bhatra. The distinction between the Bade and Manjhela Bhatra seems to be based on territorial considerations, rather than on any real difference between the two populations. The territorial affiliations of these sub-groups are mainly confined to smaller units called Parganas. The Bhatra living in different Parganas are mostly referred to by different names,

and marry within the Pargana. This has caused a kind of isolatory effect, creating a number of sub-groups amongst the Bhatra, which persist even after Parganas have been abolished (Tandon, 1959). San Bhatra on the other hand may be taken as distinct from the other two sub-groups, not only socially, but to a large extent genetically also, as a result of considerable inflow from the 'Jagdalpur Muria' into the San Bhatra, owing to 'Bhatra movement,' that is, the tendency of low-land Muria to become Bhatra (Grigson, 1938; Elwin, 1947). These three sub-groups have been treated separately, and their sample sizes are 153, 64 and 88 respectively.

The Muria sample of the present study is drawn from the region north of the Bhatra tract, in the Kondagaon Tahsil, extending westward into Narayanpur Tahsil, up to the south-eastern foothills of Abujmarh mountains. On the basis of cultural differences (Elwin, 1947), the sample is actually representative of two different populations, the Eastern and Western Muria, living east and west of the Bade Dongar hills in Kondagaon Tahsil. Elwin (1947) has called the first Muria (Gond) and the second 'Jhoria' Muria, but in the present study the term 'Jhoria' has not been employed as it has gone out of use. Genetically, too, the two groups seem to be distinct as the Eastern Muria are said to be the 'aboriginal Gonds of Bastar' (Elwin, 1947) derived from the 'standard type of Central Provinces Gond' (Grigson, 1938), whereas the Western Muria are mainly Muria, now settled in the foothills (Elwin, 1947). As a matter of fact the Western Muria population is constantly being replenished by the movement of the Abujmarh Muria into the lowlands (Grigson, 1938, Elwin, 1947).

* With three tables

Geographical factors also tend to keep the two populations distinct, as the two groups rarely come into touch with each other. The sample sizes for the Eastern and Western Muria are 143 and 169 respectively.

The Mahra are widely distributed in Bastar, so much so that there must be very few villages in the whole of the district without at least one Mahra household. The Mahra, who are a low caste, maintain a lower status in the tribal setting of Bastar too, and are quite distinct from the tribal populations of Bastar. It is quite possible that the Mahra of Bastar are derived from the Mahar of the adjoining region of Maharashtra, who are a varied group and overflow into all the neighbouring states (Shukla and Solanki, 1958; Rakshit, 1960; Negi, 1960). There is, however, a difference in the occurrence of distinct clan names in the two groups, but as the Mahra have been living for many generations side by side with the tribal populations of Bastar, they may have adopted the clan names current amongst the various tribes. The Mahra sample is drawn from the villages in Bhatra tract, in Jagdalpur Tahsil, and the total number of persons tested is 123.

In all cases, the sex and age of the subjects was recorded. Every possible care was taken not to include closely related persons in our samples. As no attempt could be made to distinguish heterozygotes from homozygotes, the frequency of sickle-cell trait as reported in this study includes both the heterozygotes and any living homozygote.

Testing for sickling was done on the spot, by using freshly prepared 2 per cent. solution of sodium metabisulphide in the manner described by Daland and Castle (1948).

Results and Discussion

Table I shows the frequency of sickle-cell trait in the various groups studied, while Table II shows the χ^2 values and probability for inter-group homogeneity test amongst those groups taken in pairs.

There is a marked difference between all the tribal groups on the one hand and the Mahra on the other. Table I shows that, while the frequency of sickle-cell trait is moderately high in all the tribal groups, in the Mahra it reaches a very high magnitude. The frequency of the trait in Mahra is the highest recorded for any Indian population, except that in 'Parjah Kondhs,' as reported by Foy *et al.* (1956).

It is noticeable that there is no statistically significant difference between the three sub-groups of Bhatra; also the two sub-groups of Muria are not at great variance with each other. Therefore the sub-groups of Bhatra and Muria can be regarded as homogeneous, and as such they have been merged for the purpose of further tests, between the Bhatra, Muria and Mahra. The χ^2 value for Bhatra and Muria is not significant, indicating that the two groups are homogeneous with respect to the trait, but the χ^2 values for Bhatra and Mahra and for Muria and Mahra are highly significant, indicating that the Mahra are heterogeneous to both the Bhatra and the Muria.

One fact which may be of interest is clearly noticeable from the results discussed above: the frequency of the

trait in all the tribal populations is of almost similar magnitude, and the only non-tribal population, the Mahra, is greatly at variance with them in possessing a frequency of a very high magnitude. Geographical and ecological factors seem to have little influence on this phenomenon. The Bhatra and Muria inhabit two different geographical

TABLE I. FREQUENCY OF SICKLE-CELL TRAIT WITH RESPECTIVE STANDARD ERROR IN THE BHATRA, MURIA AND MAHRA

Group	No. of Persons Tested	No. of Persons Affected	Frequency of Sickle-cell Trait	Standard Error
Bade Bhatra	153	25	0.1634	0.0299
Manjhela Bhatra	64	7	0.1094	0.0390
San Bhatra	88	17	0.1932	0.0421
Eastern Muria	143	15	0.1049	0.0256
Western Muria	169	27	0.1598	0.0282
Mahra	123	47	0.3821	0.0438

regions, which also differ from each other ecologically; amongst the Muria, the Eastern and Western Muria, again, inhabit two distinct geographical regions, yet all these groups have a similar distribution of the trait; whereas the Mahra, in spite of sharing the same geographical region and ecological setting, are greatly at variance with the Bhatra.

TABLE II. χ^2 (1 D.F.) VALUES AND PROBABILITY FOR INTERGROUP HOMOGENEITY

Groups Compared	χ^2	Probability	Remark
Bade Bhatra and Manjhela Bhatra	0.662	0.50 > P > 0.30	Homogeneous
Bade Bhatra and San Bhatra	0.155	0.70 > P > 0.50	Homogeneous
Manjhela Bhatra and San Bhatra	0.567	0.50 > P > 0.30	Homogeneous
Eastern Muria and Western Muria	1.303	0.30 > P > 0.20	Homogeneous
Bhatra and Muria	0.638	0.50 > P > 0.30	Homogeneous
Bhatra and Mahra	25.996	P < 0.001	Heterogeneous
Muria and Mahra	34.905	P < 0.001	Heterogeneous

It may not be out of place here to speculate on the possible relationship of the Mahra of Bastar to the Mahar of Maharashtra. Shukla and Solanki (1958) found that the Mahar of Nagpur region possess a high frequency (22 per cent.) of the sickle-cell trait.¹ In view of the selection pressure which acts in favour of the heterozygotes, it is quite possible that, in the highly malarial setting of the new habitat, the frequency of the trait in the Mahra of Bastar reached the present high magnitude over the generations, after they reached their present habitat, as an extension of the Mahar of Maharashtra. This observation, however, needs to be corroborated by other studies, as a single trait alone cannot establish such a relationship.

Table III shows the frequency of the trait in three different age groups. The χ^2 test does not reveal any detectable influence that the age may have, on the distribution of sickle-cell trait frequencies.

Summary

The presence of sickle-cell trait in two tribal and one low-caste group of Bastar is reported. It is noted that the tribal groups have a similar distribution of the trait, of considerably lower frequency than that of the non-tribal group, which possesses a frequency of very high magnitude.

TABLE III. FREQUENCY OF SICKLE-CELL TRAIT IN DIFFERENT AGE GROUPS

	Bade Bhatra		Manjhela Bhatra		San Bhatra		Eastern Muria		Western Muria		Mahra	
Age Group	No. Tested	No. Sickler	No. Tested	No. Sickler	No. Tested	No. Sickler	No. Tested	No. Sickler	No. Tested	No. Sickler	No. Tested	No. Sickler
Less than 27	50	8	26	2	28	5	27	3	63	10	40	12
28-42	68	13	22	2	38	10	68	9	60	7	57	25
Above 42	35	4	16	3	22	2	48	3	47	10	26	10
Total	153	25	64	7	88	17	143	15	169	27	123	47
χ^2	0.841		1.212		1.113		1.326		1.644		1.182	

χ^2 at 5 per cent. level = 5.99

I wish to thank Shri S. Hasin Ahmed for rendering ungrudging technical assistance during the field work.

Note

¹ This has been corroborated by Das *et al.*, 1961.

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ROYAL ANTHROPOLOGICAL INSTITUTE PROCEEDINGS

Field Work, Films and Photographs. By G. B. Milner, *School of Oriental and African Studies, London. Part of a communication to the Institute, 18 January, 1962.*

23

For many years now ethnographers and social anthropologists have made use of visual aids in their lectures and publications, either in the shape of still photographs in books, or of slides projected on a screen in lectures. Increasingly films are now shown, usually taken by the fieldworker himself. It is possible that the value and significance of these devices have already been considered at length somewhere, but if that is the case I do not know what conclusions were reached. At any rate there is perhaps a danger that visual aids may be taken for granted, if only because of the tradition which already attaches to their use. The present note is therefore a brief inquiry into the nature, uses and implications of photographic and cinematographic aids in anthropological field work.

Let us take for instance the case of an author who, perhaps with the encouragement of his publisher, decides to insert in the appropriate chapter of a book a photograph taken by himself of an African or an Asian engaged in a form of ritual behaviour. In what way does the photograph add anything to the accompanying written description of the behaviour in question? Is it a document in the same sense as the narrative passage in which the author tells us what he experienced with the evidence of his senses on a particular occasion? Is a photograph a pictorial representation of a 'slice of life,' a very brief moment in time as the camera registered it (and different therefore from the same moment as registered by the fieldworker) and is that moment then mounted into a book rather like a butterfly in a collector's case? Or is it intended to be regarded as an abstraction, for instance, as an example of what happens regularly, or periodically, certain features not being constant and therefore being non-significant or irrelevant, while

other features are by definition always present? It may be that a great deal will depend on the caption under the photograph.

These questions are closely related to the view that the fieldworker takes of himself, not only as a photographer, but as an investigator in general. Is he saying to us, with a photograph to corroborate his statement, something like this: On day X, in a place called Y, I saw an individual named Z perform a specified action? Or is he saying: As a result of my observations, I have good reason to believe that within certain spatial and temporal limits a certain kind of person may, did, or could engage in a certain kind of behaviour, and that the resulting scene might appear somewhat like the scene depicted on the photograph? The difference between the two kinds of statement, which is perhaps mainly one of degree of abstraction, is recognized by all fieldworkers when they publish the results of their findings. Are they aware, however, of the difference between the two kinds of statement in the publication of photographs, on the one hand, and in the showing of films on the other? The distinction is not without importance, for pictorial as well as graphic records can be utilized for imaginative interpretation as well as for factual recording.

The following passages from published works, both of which could lend themselves to photographic illustration, will serve as examples. First, here is a passage of factual ethnography. It is taken from Malinowski's *The Sexual Life of Savages*:

One of my earliest informants was Gomaya of Sinaketa, an enterprising, but very lazy and dishonest man, and a great *couteur de femmes*. I got his story partly from himself, partly from gossip, and partly by personal observation. He was betrothed to his cross-cousin, but in spite of this, entered into a flagrant intrigue with a good-looking girl, one Ilamweria of Wakayse, a village near Omarakana.

There is what one might term a juicy slice of life, a factual instance in support of a general statement. Had he wished to do so, the author might have included a photograph with the caption: 'Gomaya conducting a flagrant intrigue with Ilaoweria.'

At the other end of the scale, and as a good example of the abstract and generalized statement, is the well-known introductory passage from the second chapter of Margaret Mead's *Coming of Age in Samoa*:

The life of the day begins at dawn, or if the moon has shown until daylight, the shouts of the young men may be heard before dawn from the hillside. Uneasy in the night, populous with ghosts, they shout lustily to one another as they hasten with their work. As the dawn begins to fall among the soft brown roots and the slender palm trees stand out against a colourless, gleaming sea, lovers slip home from trysts beneath the palm trees or in the shadow of beached canoes, that the light may find each sleeper in his appointed place. Cocks crow, negligently, and a shrill-voiced bird cries from the breadfruit-trees.

For the caption of a photograph in support of the above passage: 'A picture of a Samoan village at dawn' would perhaps have served. In this case the exact time or place or even the individual details are not significant.

The distinction which can be established between the two kinds of statement in ethnographical writing may need to be particularly stressed if the fieldworker has an additional eye in the form of a movie camera, as we shall see presently.

In their difficulties with the theory of meaning, linguists, at least in Western Europe, have drawn much help from the proponents of the contextual approach, especially from Malinowski and J. R. Firth (though perhaps neither would have claimed the entire credit for the theory of the context of situation). It seems clear that Malinowski was aware, as all scientists must be, of the distinction between particular observations and general statements. It is true that a careful reading of the second volume of his *Coral Gardens and Their Magic* is required to enable one to decide whether he regarded contexts of situation as abstractions which could be arranged in a system of categories or as an apparently endless series of actual events. Thus, pages 51 and 73 include statements that each utterance belongs first of all to a 'context of culture' or 'context of reference' (i.e. to a definite subject matter) and to a context of situation. Both types of context are subject to varying degrees of abstraction and Malinowski seemed to have sought a comprehensive, if perhaps rather loosely defined system of classification for actual utterances and situations.

J. R. Firth in the later years of his career made an attempt to define 'context of situation' somewhat more rigorously. In a paper published in 1950 ('Personality and Language in Society,' *Sociological Review*, Vol. XLII (1950), pp. 37-52), he writes as follows (p. 43):

A context of situation . . . brings into relation the following categories:

- A. The Relevant features of participants: persons, personalities.
 - (i) The Verbal Action of the Participants.
 - (ii) The Non-verbal Action of the Participants.
- B. The Relevant Objects.
- C. The Effect of the Verbal Action.

Contexts of situation and types of language function can then be grouped and classified. A very rough parallel to this sort of context can be found in language manuals providing the learner with a picture of a railway station and the operative words for travelling by train.

The parallel which Firth has drawn with the picture of a railway station in a language manual (perhaps familiar to us all) will serve as a connecting link between context of situation, photographs and films in ethnographical descriptions.

All those who take an interest in the cinema will not need to be reminded that an ethnographical film must differ radically from a photograph. The latter has some claim to be non-selective and non-interpretative. An edited film, however, has hardly any. The editor, if he is to do his work at all, must constantly select this sequence, reject that one, substitute another and interpolate a third, sometimes without much regard to the chronological order in which the events depicted were filmed. He will emphasize one character and underplay another. He can, by chance or design, give the impression that events which were in fact widely separated, spatially and temporally, actually happened at the same time and place. By artificial means, he can accelerate one's impression of the passage of time, or he can slow it down. This will apply not only to imaginative cinema but to documentary films also where professional actors may be playing the part of genuine participants and where even the latter may receive varying degrees of instruction as to the behaviour expected of them while the film is being made. It will be realized therefore that the anthropological fieldworker who first wields his camera (perhaps after requesting his subjects not to look at the lenses, as is their natural tendency) and subsequently edits his own films performs a function essentially similar to that of the director of a documentary film. In other words, he does photograph events and situations, though the limited amount of film at his disposal, and the fact that he cannot be everywhere at the same time, already imposes severe limitations on his attempts to be objective and factual. He cannot provide real continuity (since he usually works single-handed and must often pause at the 'wrong' moment in order to reload his camera). He therefore cannot help but be selective. He it is who decides which features of, say, a particular ceremony are significant, and which are not, in the editing as well as in the filming process. When he edits he must, in order to get the best out of his presentable material, do a great deal of cutting-out and filling-in. To give his material greater coherence, he may rearrange and realign times and places, perhaps without paying scrupulous regard to strict chronological order. For instance, the most important person in a particular ceremony may have been missed, because the exposure was incorrect or the film had run out. Is one to leave that sequence out or should one provide a substitute from another reel taken on a different occasion? One may be tempted to do the latter. We may, in fact, no longer be looking at individuals concerned in a certain event (though as spectators it is precisely what the film-maker may hope that we will do) but persons (as opposed to individuals) in roles (as opposed to actions) in certain types of situation (as opposed to events). We may be looking at an abstract representation of a context of situation in the sense in which J. R. Firth used that term, or in other words a representation which is *mutatis mutandis* functionally similar to that of a railway station drawn especially for a first language course.

It is necessary to stress that the activities of the film director and editor do not necessarily make the film fictitious or falsify its relationship with the world of events, as so many documentary films have shown. In the words of the paper mentioned above (p. 50) it may often be necessary to 'separate from the mush of general goings-on those features of repeated events which appear to be part of a patterned process,' or as Firth stated in his contribution to the collection of essays dedicated to the memory of Malinowski (*Man and Culture: An Evaluation of the Work of Bronislaw Malinowski*, edited by Raymond Firth, London, 1957, p. 113): 'let us again emphasize that "facts" do not "exist," they

are stated, and it may indeed be a better guide to the handling of facts to regard them as "myths" in which we believe, and which we have to live with.

Since the days of Bloomfield, many American structural linguists have tended to treat meaning in a somewhat arbitrary fashion. There are certain semantic assumptions implicit in the processes utilized by them to establish 'glosses' and 'minimal

pairs' but these assumptions have not often been discussed or even examined. More recent work, however, on both sides of the Atlantic points to a revival of the interest in problems of meaning, in both anthropology and linguistics. If the penumbra between the two disciplines is to be illuminated, a fresh examination of the development of the contextual approach to meaning by Malinowski and Firth might be an obvious starting point.

SHORTER NOTES

Note on the 'Neolithic' Stone Hammers of the Uele Basin.

By Francis L. Van Noten. With two text figures

24

During an examination of the so-called neolithic cultures in the Uele river basin, a number of 'axes' with a very wide edge were noticed in the collections of the Musée Royal de l'Afrique Centrale (Tervuren, Belgium) and the Institut Royal d'Histoire Naturelle (Brussels). These axes remind one of the stone hammer described by William Fagg in his paper on 'Ironworking with a Stone Hammer among the Tula of Northern Nigeria' (MAN, 1952, 76).

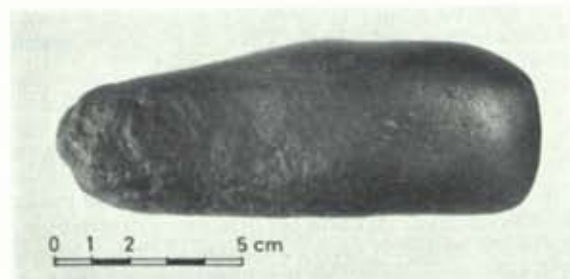


FIG. 1. STONE HAMMER FROM THE DAKWA RIVER

Though this axe is not identical with the ones described here, it shows the same wide edge. Until now these artifacts were thought to belong to the Neolithic, because they are polished. But no plausible explanation of their use has ever been given.

The existence of a real Neolithic in these areas has not yet been proved, because this culture is imperfectly known there. This is mainly due to the selective collecting of polished tools; stratigraphical excavations were never conducted. It is not improbable that these artifacts had the same use as the hammer described by Fagg. It is therefore possible that they are much younger than was originally thought and belong to the Iron Age. Another possibility is the secondary use of a true neolithic axe. As far as we know, no records of modern use of these axes exist, nor have we found legends or traditions mentioning them as such.

We wish to give here a description of four axes, each a little different, but all with the large edge in common. We have found 16 small tools, most of them wide and short (the shortest has a length of 52 mm.). Another type is more similar to the one described by Fagg; it is much longer and thinner. Of this type we have eight pieces.

We know the origin of 17 tools: Dakwa river, Solo river, Sili, Ambu river, Lemvo river (Faradje), Gumbare (Watsa) (two), Nea river (Niagara), Doromo (Kibali river), Bokoio (Niagara), Ganza (Watsa), Napangi (Niagara), Niagara, Buende (Ango), 2 Bondo, Amadi (Poko). We do not know the exact locality of the other tools, but they all come from the Uele basin.

As is the case with the stone hammer described by Fagg, all our axes are very heavy indeed, being made of haematite.

(1) Figs. 1 and 2a. This hammer comes from the Dakwa river (affluent Uere, affluent Uele). Museum No. 1259 (Tervuren). Length: 127 mm.; height: 47 mm.; thickness: 33 mm.; weight: 500 g. Although rough and largely unpolished, this tool can easily be handled. The edge only is polished, the heel being very rough. Width of the edge: 8 mm.

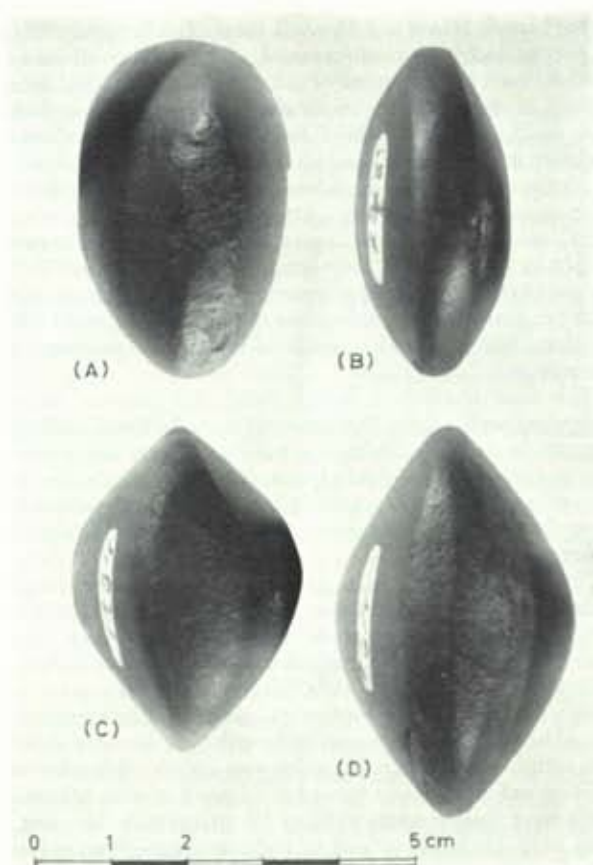


FIG. 2. EDGES OF FOUR STONE HAMMERS

(a) Dakwa river (see also fig. 1); (b) Solo river; (c) Sili; (d) Ambu

(2) Fig. 2b. This tool comes from the Solo river (Poste Wo-Sudan) on the line of separation of the Congo and Nile watersheds. Museum No. 1266 (Tervuren). Length: 74.5 mm.; height: 45.5 mm.; thickness: 22 mm.; weight: 180 g. This artifact is well polished at the edge. The other half is pecked (to be fitted into a haft?). The heel is flat and could possibly be used as well. Width of the edge: 8 mm. This is one example of the small type.

(3) Fig. 2c. Origin: Sili (Region Amadis-Suronga). Museum No. 1254 (Tervuren). Length: 105 mm.; height: 44 mm.; thickness: 35 mm.; weight: 441 g. This hammer is beautifully

polished; only the heel is pecked. On the side opposite the edge, the hammer is flattened (30 mm. wide). The edge is 14 mm. wide.

(4) Fig. 2d. Origin: Ambu (30 km. south of Mount Tina, on Bomokandi river). Museum No. 25.707 (Tervuren). Length: 138 mm.; height: 56 mm.; thickness: 37 mm.; weight: 652 g. The edge is 14 mm. wide. The heel is not flattened, but convex and pecked.

As can be seen from the photographs and the description, it is clear that it is impossible to use these tools as axes; the cutting edge is completely absent. It is probable that they were last used as hammers (perhaps secondarily), possibly in ironworking.

On Bias of Exotic Data. By Raoul and Frada Naroll, San Fernando Valley State College, Northridge, California

25

In the course of our cross-cultural survey work, we have been developing a method for controlling spurious correlations due to errors in data-collection, whether made by informants, ethnographers, or comparativists (Naroll, 1960; Naroll, Naroll and Howard 1961; Naroll, 1961b). We are at present studying a random sample of 45 segments of the overland diffusion arcs which one of us has elsewhere described (Naroll, 1961a). In order to check on the data-quality-control methods of this study, we made a brief field inspection of two societies included in this random sample: the Papago and the Nahua.

The purpose of this check was to compare the statements in monographs with our own first-hand observations (however brief) and to solicit comments on specific statements in the monographs by informants or long-term European residents. The idea was not to correct specific statements about these two societies as such but instead to seek indications of any kind of general ethnographical bias not already considered in our data-quality-control procedures.

This field inspection, though brief, did uncover evidence suggesting such a bias. Discussion of it with several colleagues suggests the strong possibility that it is a widespread and important bias in ethnographical field reports. Looking back on our field reports on a Tyrolean peasant village in the light of this field inspection reveals some evidence of this same bias in our own earlier work.

The bias that we have in mind is the bias of exoticism. An anthropologist displays the bias of exoticism when he tends to notice and to report behaviour unlike that of his own culture more readily and more faithfully than he tends to notice and report behaviour like that of his own culture. The field worker in a foreign culture is looking for foreign behaviour. The more highly trained he is professionally as an anthropologist, the more sensitive he is to behaviour unlike that in his own society. When he visits a foreign culture he looks for and finds much of such behaviour. We submit that he tends to focus his attention on this sort of thing and is likely to overlook or underemphasize those elements of the foreign culture which resemble his own.

Obviously, one brief inspection trip is not adequate to establish the general existence of such a bias; though we wish to go on record here as expressing our own impression that it is widespread and important. Personal impressions are not scientific demonstrations. However, we present here the evidence so far at hand and commend the matter to the attention of the profession. The cross-cultural survey which we are now making will incorporate a formal test of this hypothesis of exoticism bias and thus can be expected to produce evidence of much wider scope.

Papago Data

About five days were spent among the Papago. Communities visited included Wahak Hotonak (Tracy's Trading Post), Kom

Vo (Santa Cruz), Topawa and Supi Oidak. Attention was focused on the monograph of Joseph, Spicer and Chevsky (1949) since this described conditions in the nineteen-forties rather than aboriginal conditions which could not now be checked in the field. Several dozen specific statements were marked in a copy of this book as being pertinent to the cross-cultural survey at hand. Each of these statements was read to two informants, Frank Vazquez of Kom Vo and Mark Manuel of Topawa. Each informant is a middle-aged man, a leading member of his community, thoroughly familiar with conditions in the nineteen-forties and used to working with anthropologists. Each informant possessed his own copy of this book and had familiarized himself with it to some extent at least.

In general, the impression of its quality gained by reading the book before going into the field was confirmed. This study still seems to us a first-rate job by a team of conscientious, able and perceptive women. The errors or distortions found were few and we would expect to find as high a proportion in the work of any other anthropologists, however long they were in the field, however well they mastered the native language, or however sensitive and perceptive their minds. This level of trustworthiness seems to be about the maximum one can reasonably expect from any field workers. Nevertheless, some evidence of distortion did turn up; and it is upon the small proportion of statements of this sort that we focus attention, ignoring the large proportion of statements which our informants emphatically confirmed.

1. *Settlement Pattern.* Spicer, in the section titled, 'The Village' (pp. 60f.) emphasizes the scattered isolated household and sees this as a leading theme of Papago culture. The typical Papago village family, she says, sees the nearest neighbouring home only dimly, as a rooftop showing up a hundred yards away almost hidden by brush. This statement may turn out to be literally correct—in that it may be true of slightly more than half of all Papago households —, although we doubt it. But it is misleading, we think, when offered as a general representation of Papago settlement pattern. Our observations and information lead us to believe that the situation in Topawa when Spicer worked there was not typical of Papago communities; Topawa, we are told, was then a new settlement and the people had not yet had time to clear the brush from between the houses. Today, it is mostly so cleared. Mrs. Richmond, a white trader who has lived 35 years among the Papago, said that when she first visited Topawa, it was a very small and unimportant settlement. Significantly, Hodge 50 years ago published a complete list of 'Papago subdivisions and settlements, so far as known' without mentioning Topawa (Hodge, 1905, Vol. II, p. 200), although today Topawa is one of the largest Papago villages. Mrs. Richmond says that the Papago like to keep the space between their houses clear because otherwise they are likely to be injured by brush when thrown from a horse. She herself witnessed the brush-clearing of Wahak Hotonak as it took place and described that to us. Thus we suspect that the typical Papago community contains a large proportion of houses in full view of several neighbours with no brush in between.

Furthermore, we doubt if Spicer has an accurate picture of the settlement pattern of Topawa. Certainly her 'maps' of Topawa and Supi Oidak (pp. 62, 64) have little value as maps, though they may be useful as diagrams of native settlement pattern images. Compare the maps of these communities by the U.S. Topographical Survey (Arizona, Pima County, 15-minute series, Vamori and Sells Quadrangles). Personal inspection including notes of distances clocked by automobile speedometer leaves no doubt that the Topographical Survey maps locate the dwellings accurately while the 'maps' by Spicer's informants badly distort their arrangement. If further verification is needed, the reader can consult aerial photographs taken in 1936 (by Fairchild Aerial

Surveys, 224, East 11th Street, Los Angeles (Job 3860)). Both maps and aerial photos are also available in the Papago Agency headquarters at Sells.

True, Spicer did mention in passing that many Papago live in clusters not conforming to what she considers the typical pattern. Her attention, however, was focused on those who did live in scattered households, behind brush barriers. The more open, more clustered arrangement of houses within a village is less exotic, more like the usual European arrangement than the more scattered, hidden arrangement (although the latter does occasionally occur in European towns, especially in the suburbs of the wealthy).

2. *Child Punishment.* Joseph *et al.* maintain that Papago children are seldom punished by spanking or other corporal punishment (except for those of a few Presbyterian families) and are at a loss to explain the socialization process (see especially p. 166; also pp. 51, 98f., 122, 124f., 132). Both of our Papago informants are from Catholic families; both objected to these statements, insisting emphatically that Papago children between the ages of 4 and 10 were spanked whenever necessary to impress parental authority upon them, 'to show them the old people mean business,' Mark Manuel put it. This was emphatically confirmed by Mrs. Richmond, who narrated vivid, eye-witness accounts of child-disciplining by a Papago mother who lived with her as a domestic servant. Here again, the Papago attitudes of tolerance toward children's misbehaviour which differ from the customary European attitudes were emphasized; those similar to traditional European attitudes were under-emphasized, it seems.

3. *Weaning Age.* Speaking of all but the youngest child of a given family, Chevsky says (p. 123) that the children are weaned at 'from 18 to 30 months.' Our informants indicated that 18 months was the usual age. In other words, Chevsky states a range but not a central tendency, leaving the reader to make the natural inference that the mean is somewhere about 24 months; our informants in effect insist that the distribution of weaning age is markedly skewed so that the modal age is close to 18 months. Mrs. Richmond says that weaning is ordinarily terminated about the fourth or fifth month of the next pregnancy and that this usually works out to something like 18 months. The impression that Chevsky gives is misleading in the direction of greater contrast with European practice.

Nahua Data

While the obvious place to check reports on contemporary Nahua-speaking people would seem to be Tepoztlan, already revisited so often, we chose Tuxpan, Jalisco (not to be confused with the other towns of that name in Nayarit, Michoacan and Vera Cruz). The reason for this choice was the availability of an ethnographical monograph in Spanish which could be discussed with local people without translation. The monograph checked was that of Silva (1956). Colleagues in Mexico City who knew the Jalisco Nahua strongly advised that on a brief inspection trip of this sort it would be essential to work through the local priest. This we did. He did not respond to repeated requests to put us in touch with Nahua informants but was quite willing to work with us extensively himself. These people are devout Catholics and the priest himself speaks fluent Nahua and has lived in Tuxpan for almost 35 years. His information on several points must certainly create strong doubts about the trustworthiness of Silva's report on them.

In general, Silva's monograph does not compare in quality with that by Joseph, Spicer and Chevsky. It does not appear to reflect a long stay; there is no evidence that Silva learned Nahua; and much of the data was obviously gathered from documentary sources, so that the remaining data, gathered from informants,

does not seem to reflect long, intensive study. However, it contains much information of value and is clearly the product of a well trained social scientist, oriented perhaps more sociologically than anthropologically. After studying the book overnight, the priest, J. M. Ruvalcaba, noted that he considered it 'accurate in almost all its data.' Again, we concentrate on those comparatively few points in which its accuracy is in question.

1. *Extended Family System.* Silva says (p. 47) that it is customary for the maternal or paternal grandparents to live with married children or grandchildren, at least among those who keep up the customs of their ancestors ('Es costumbre que los abuelos maternos o paternos convivan con los hijos casados o los nietos, pues son los que mantienen las direcciones de sus ancestros.') Father Ruvalcaba agrees that this extended-family household was characteristic of the Tuxpan Nahua in the nineteenth century, but denies that it occurs today, except in cases of advanced age or special difficulty; ordinarily, he says, each nuclear family maintains its own household.

Thus according to the priest, Silva has overemphasized a practice which departs from the usual European practice and hence is comparatively exotic (although extended-family households do of course occur in Europe).

2. *Marriage Arrangements.* Silva says (p. 48) that the custom occasionally survives of the parents of the groom choosing his bride for him, although in general the young man selects his bride himself. ('Aún se conserva la costumbre, aunque no muy estricta, de que los padres del hijo varón elijan la esposa de éste; pero, por lo general, ya el joven casadero designa a la que ha de ser su consorte.') Father Ruvalcaba disagrees; he denies that the custom survives at all; choice by the groom himself is not merely the general rule, as indicated by Silva, but the invariable rule. Here again, according to the priest, Silva has overemphasized the unusual or exotic behaviour, considered from the European viewpoint.

3. *Use of Native Pharmaceuticals.* Silva says (p. 66) that the Nahua use native herbal remedies almost exclusively and rarely purchase commercial pharmaceuticals from the druggist. (Los indígenas sólo se curan con sus medicinas tradicionales y muy pocos emplean la medicina de botica.) Father Ruvalcaba disagrees. He says that both kinds of pharmaceuticals are widely used by the natives. Thus according to the priest, the natives are less exotic in this respect than Silva says.

Kaunertal, Tyrol

After reviewing this evidence, we considered our Tyrolean field reports (Naroll, 1958, Naroll, 1959, Naroll and Naroll, n.d.) for exoticism bias in our own work. Since our field reports were read in manuscript by Kaunertalers before publication, we hope that there are no serious errors. However, we found evidence of some failure to consider the less exotic aspects of Kaunertal life. We paid great attention to the land-title arrangements for the Alpine pastures, which are quite different from anything we know about in the United States; but we gave no time to land title for crop land, which seems to be handled as among us. We carefully noted the wayside shrines which however common in Central Europe are not often found in the United States; but we said nothing about the large Coca-Cola sign near the entrance to the chief village inn. We gave attention to the distinctive uniforms of the village band and rifle company but said nothing about the fact that the firm of Lodenbauer in Innsbruck, after consulting folkloristic publications on Tyrolean peasant costumes, had designed the uniforms.

Conclusion

Thus, both by looking back on our own field reports on the Tyrol and by making this field inspection we have found some

evidence that anthropologists tend to notice and report behaviour unlike that in their own culture more readily and more faithfully than behaviour like that in their own culture. By focusing attention on the behaviour unlike that in their own culture anthropologists show a bias toward exoticism, and this bias consequently leads them to overlook the elements of foreign culture which resemble their own. Therefore, in data-quality-control it is necessary for the comparativist to take into consideration and allow for this bias when he makes his cross-cultural generalizations. In our current random sample of 45 segments of the overland diffusion arcs we are accordingly instituting control variables to correct the bias of the exotic in ethnographical field reports.

Acknowledgements

This research was supported by Grant M-3821, National Institute of Mental Health, U.S. Public Health Service. We are greatly indebted to Messrs. Hector Galvez and Leonardo Manrique of the Escuela Nacional de Historia y Antropología, Mexico City, for valuable advice and suggestions.

CORRESPONDENCE

Dr. Leach on Double Descent Systems. Cf. MAN, 1962, 214

26

SIR,—For the first part of his paper, many thanks to Dr. Leach!

For the rest, a clue to the right answer to the simple-minded undergraduate's right question, 'Why do they go to all that trouble?' may also be found in that same book by Rivers in which Dr. Leach has found his first 'revelation.' Rivers's treatment of the subject is permeated by the principle of continuity, and he increasingly recognized during the latter part of his life that the application of this principle consistently to the social and cultural life of the non-literate peoples studied by ethnographers and social anthropologists had much to offer towards a solution of such problems as are worrying Dr. Leach. How does the individual cope with the exactness with which his relations with paternal and maternal kin are specified? How do the more disconcerting systems of social organization and kinship relations function? What is the *raison d'être* for atypical and asymmetrical varieties of kin organization?

Guided by the principle of continuity in cultural and social behaviour, it is possible to see that the individual copes with the exact specification of his behaviour patterns *vis-à-vis* maternal and paternal kin because the patterns are not really functional and integral effects of the social needs and pressures to which he is subject, so that there is an element of 'double-think' in his reactions—his right hand doesn't necessarily want to know what his left hand is doing! As has often been observed of simple unlettered people in all societies, incompatible ideas and practices can co-exist within the same unreflecting mind. The *raison d'être* of atypical systems is not to be found within the societies being studied—if it were there, it is certain that somewhere in the plethora of studies of primitive social systems it would have been spotted by now—because it lies in other societies and in the past. It is thus inaccessible to the social anthropologist who adheres to the dictum that the social and cultural activities of any primitive group arise spontaneously from intragroup processes, by social, personal and cultural pressures and relationships within that group in its day-to-day and year-by-year activities.¹

Rivers came to realize that any such group has acquired, inherited or brought with it from elsewhere ideas, beliefs and practices which sometime, somewhere, were integral parts of a cultural pattern and in that context had some rational basis and logical consistency. As now observed in the particular group concerned these ideas and practices have become deformed, distorted, meaninglessly elaborated and more and more cut adrift from any rational roots which they may once have had. In a word, as observed in contemporary

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primitive society these beliefs, ideas and practices are the rags and tatters of traditions and systems from other places and other times. They are maintained by the inertia of the human mind in the conditions of virtual isolation experienced by these societies between the time of their former participation in a wider consortium of culture and the intrusion of Europeans.

This was the lesson learned between 1911 and 1922 by Rivers, which coloured all his ethnological thinking during that time, and maybe Dr. Leach and social anthropologists generally could find something in the lesson for themselves too. To the outsider it seems that if their studies are not to come to a dead end a fresh orientation to the problems of kinship and social organization is required. It ought not to be necessary for Dr. Leach to postulate the impossibility of structural systems in which all avenues of social action are narrowly institutionalized just because 'in all viable systems there must be an area where the individual is free to make choices so as to manipulate the system to his own advantage,' for after all, such systems have been observed and described by dozens of reputable anthropologists. If this is the choice facing social anthropologists, then surely the simple-minded undergraduate's question becomes even more relevant—and unanswerable in 'functional' terms. There seems to be some logical inconsistency when systems arise which prescribe behaviours to smooth out social processes² and yet leave scope, indeed make it incumbent upon all to turn those systems to their own individual advantage, in effect sanctioning the chaos which the systems are supposed to control. This is surely positing a too highly sophisticated and self-conscious attitude for the native, to devise systems so tightly integrated with the relationships, pressures and situations obtaining within the group that they have to have a built-in escape clause for everyone subject to their restraint. It sounds somewhat like Parkinson's Law operating in primitive kinship and social organization, and before this be unreflectingly accepted as a guide to analysis and understanding, a remark by a close colleague of Rivers about another cultural situation ought to be pondered: 'As constantly happens in the history of man, a reasoned system has left behind a deposit of unreasoned (not necessarily unreasonable) behaviour.'³

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C. E. JOEL

Notes

¹ See, e.g., Piddington, *Introduction to Social Anthropology*, Vol. I, chap. VI; and cf. S. F. Nadel, *Foundations of Social Anthropology*, p. 193.

² R. Firth, *Elements of Social Organization*, pp. 41f.

³ A. M. Hocart, *The Life-Giving Myth*, 1952, p. 213.

REVIEWS

AMERICA

The Daily Life of the Aztecs on the Eve of the Spanish Conquest.

27

By J. Soustelle, translated by P. O'Brian. London (Weidenfeld & Nicolson), 1961. Pp. xxiv, 319, 24 plates, 2 maps. Price £1 10s.

Jacques Soustelle is better known for his political activities. Starting as a far leftist, he became during and after the war perhaps de Gaulle's most ardent lieutenant. When governor of Algeria his sympathies were captured by the colonists; now he is an exile leader of the O.A.S. In the nineteen-thirties he earned a fine reputation as an ethnologist in Mexico, notably among the Otomi and Lacandon.

This very readable book covers the life of the individual Aztec and of the community. It is an able condensation of the enormous mass of material on Aztec life (Sahagun's *Historia* alone would make a dozen such books), comparable to the non-historical parts of Vaillant's *Aztecs of Mexico* or that fine classic, Joyce's *Mexican Archaeology*. Soustelle embellishes his faithful picture of Mexican life with many acute, well turned observations, for instance: 'He [the Aztec] was governed by predestination; neither his life nor his after-life were in his own hands, and determinism ruled every phase of his short stay on earth. He was crushed under the weight of the gods and the stars' (p. 115).

One gets the impression that the author never made up his mind what class of reader he was addressing. Thus the notes, occupying 49 pages, are largely of citations, but with some amplifications of the text. The former, of no interest to most readers of this popular presentation, could have been omitted or put in small type, making space for badly needed text figures (none here, but over 80 in the Spanish edition); the latter incorporated into the text. The text is strewn with hundreds of Aztec words, and one wonders how many readers wish to know the Aztec names of, for instance, tadpoles, shrimps, spears, pine torches and sarsaparilla. Yet, Soustelle's vivid presentation overcomes such handicaps.

The translation is good, but there are occasional errors. For example, in the passage cited, the day signs with their auguries, not the stars, crushed man. Again, in the ball game the ball was not thrown at the ring, as Soustelle's next sentence makes clear; hands were not allowed.

J. ERIC S. THOMPSON

Indianerkunst der Nord-Anden.

28

By Horst Nachtigall. Berlin (Reimer), 1961. Pp. 168, 1 map, 619 illus. after the text. Price DM 42. **Alt-Kolumbien: Vorgeschichtliche Indianerkulturen.** By Horst Nachtigall. Berlin (Reimer), 1961. Pp. 200, 1 map, 31 illus. Price DM 35.

Americanists dealing with Colombia seem to agree that this country owing to its geographical situation has a key position in the study of the Indian cultures in nuclear America. It is, however, an obvious fact that we still do not know enough about the archaeology and the interrelations of the historically known tribes in the country to get a fairly clear picture of the Colombian Indian cultures. Every contribution intended to give a review of the actual facts and written by scholars with enough knowledge of the problems involved must therefore be welcome. Dr. Horst Nachtigall of the University of Mainz, Germany, the author of these two works, himself by personal investigations in Colombia has a first-hand knowledge of the material and the problems and undoubtedly also shows himself as a scholar who has a detailed familiarity with the literature.

The first-mentioned of these books, with its many illustrations which give us an excellent concentrate of the most representative pottery types, etc., from the cultures hitherto known and discussed, has a subtitle indicating that the book was intended as a contribution to the typology of the Indian art, and the author has also successfully contributed to our knowledge through a presentation of the characteristics of the production left by the Muisca, the pottery of the Pijao, the cultures of the Magdalena and Cauca valleys, the Tairona culture and that of the coast region in the north. He con-

tinues with the Nariño-styled pottery and that of the Esmeraldas-Tumaco culture, to discuss, finally, the pottery of the San Agustín culture and the various gold works left by Colombian Indians who had learned to master—sometimes, as we know, superbly—the techniques for this metal. If anybody misses the Tierradentro culture in this book, he is referred to Nachtigall's work on that region printed in Switzerland in 1955, or he can turn to pp. 137-40 in the *Alt-Kolumbien* book of 1961. The two works published in this year really form a unit and as a matter of fact they could very well have been edited as one book, which would, I think, have facilitated the use of the material facts presented by the author.

In both works Dr. Nachtigall mostly contents himself with a proper and not too complicated description of the material and the facts known about it, which makes them easy to read even for non-specialists. Sometimes, however, he finds reason to criticize the conclusions drawn by for instance a well-known Colombian archaeologist ('*Indianerkunst*', p. 44, on work done in the Río César valley, '*Vollig grundlos*', etc.; and '*Alt-Kolumbien*', p. 81, on the surface finds from Isla de Indios in the Zapotosa lagoon, Lower Magdalena, which finds Nachtigall cannot accept as the oldest, and thus finds the chronology for the Lower Magdalena region 'höchst zweifelhaft'). We cannot deny that the author has tried to present in words and good pictures (often of unusual forms as well) as many pottery types, stone and metal specimens, etc., as possible, and the works taken as a whole are therefore very valuable for everyone interested in the Colombian cultures. Some statements in the text, however, I cannot accept. Can we, e.g., really assert that the Incas in their quipus had '*eine Schrift oder einen Schriftsatz*' ('*Alt-Kolumbien*', p. 53) and that the Cuna and Chocó are Carib tribes ('*Alt-Kolumbien*', p. 85). To the best of my knowledge both statements are wrong.

The personal speciality of Dr. Nachtigall seems to be the Tierradentro culture in South Colombia, and in '*Alt-Kolumbien*' he gives us valuable outlooks on this culture which, like that of S. Agustín, is well known for its stone statues. In his previous work on this culture he was able to show by a cultural analysis that the Páez Indians who now live in the region were originally brought there as a consequence of the conquest, and they cannot therefore be reckoned as the masters of the unique painted grave chambers which have been cut in a kind of sandstone. Nachtigall stresses that these imposing graves from a typological point of view have their forerunners in the simple deep-level shaft graves with attached chambers which are typical for the North Andean region.

For the clear presentation of the material and not least from a topographical point of view it has been a pleasure to read these two works. His detailed bibliographies make both volumes a valuable tool for all Americanists interested in the cultures of the north-western corner of South America.

S. HENRY WASSÉN

The Ethnobotany of Pre-Columbian Peru.

29

By Margaret A. Towle. Viking Fund Publ. in Anthropol. No. 30. Chicago (Aldine Publishing Co.) (London agents: Bailey Bros. & Swinfen), 1961. Pp. ix, 180, 15 plates 1 map. Price \$6.

This is a very useful publication. It starts with sufficient introductory matter to make it intelligible to archaeologists who are not familiar with the area, and botanists who are not familiar with the archaeology. The body of the work consists of a discussion of the archaeologically known plants, family by family and species by species, followed by an account of what is known about the plants of each of the main periods into which Peruvian archaeology has been divided. In the latter part, each of six areas, into which Peru is sometimes divided for convenience of description, is treated separately. The first five plates consist of delicately executed drawings of plant remains found in excavations, and the others are photographs of plants represented on pottery.

Archaeologically, the book is in some respects a little out of date,

and in view of the fact that the foreword is by no less a person than Professor Gordon Willey of Harvard this would be surprising, were it not that I have been reliably informed that publication has been much delayed. It is stated that an absolute chronology for the Central Andean area is still wanting, but there are now enough carbon dates for some areas to give a reasonably firm dating from the period of incipient agriculture (about 2000 B.C.) up to the end of the Classic (about A.D. 750) although not enough is known yet about the subdivisions of the Post-Classic period up to the rise of the Incas in the fifteenth century. There are even two dates, one early and one late, for the pre-agricultural period.

A fact which is still difficult to account for is the omission of any mention of the abundant relevant information in an article published by F. Engel in the *Journal de la Société des Américanistes de Paris* in 1957, since it is listed in the bibliography. This is a most important source for the preceramic period (incipient agriculture), since it describes many previously unknown sites distributed throughout the coast, and even includes a provisional catalogue of the Peruvian plants known archaeologically, distinguishing those known in the preceramic.

The brief paragraph on the pre-agricultural period has been rendered largely out of date by more recent work than that mentioned above, but this is of little importance for the author's purposes since botanical evidence about it is lacking. The information could not in any case have been available when the book went to press.

Finally, it is worth mentioning, for future reference, that it has recently been shown by Rowe (in *Essays in Pre-Columbian Art and Archaeology*, by S. K. Lothrop and others, Harvard, 1961) that the wooden *keras* (beakers) bearing pictorial scenes are post-Columbian, so the evidence they give is not really relevant to the subject of the book.

These matters affect but a small part of the book, and anyone working on Peru will find it indispensable. The author is continuing her researches and it is to be hoped that she will have something more to give us before very long.

G. H. S. BUSHNELL

La Victoria, an Early Site on the Pacific Coast of Guatemala.

30

By Michael D. Coe. *Pap. Peabody Mus. Arch. and Ethn., Harvard U., Vol. LIII, Cambridge, Mass., 1961.* Pp. 162, 18 tables, 49 plates, 12 text figs. Price \$6.50 (clothbound, \$11)

This monograph is a detailed descriptive report on a small coastal village site which yielded a ceramic sequence extending back in time to the early Formative period of Meso-america. Four phases were determined: Marcos, a Late Classic phase with San Juan Plumbate; Crucero, a poorly represented Late Formative phase; Conchas 1 and 2, Middle Formative; and Ocos, Early Formative. Ceramic cross-ties with the radiocarbon-dated sequence at the site of Chiapa de Corzo, in central Chiapas, suggest that Ocos dates from about 1500 to 1000 B.C., Conchas 1 about 1000 to 700 B.C., and Conchas 2 about 700 to 300-150 B.C.

Although Coe's analysis of the chronology of the many Formative sites now known in Meso-america makes it evident that Ocos is one of the earliest phases, the ceramic industry is already well developed and relatively sophisticated, with a variety of wares, vessel forms and decorative techniques. Coe notes that a number of the plastic decorative techniques from this early time, such as cord-marking, zoned rocker-stamping, dentate stamping, and fabric-marking, are similar to techniques characteristic of Woodland ceramics in eastern North America; and he presents the possibility of a northern stimulus for the development of Meso-american pottery.

The site of La Victoria is an important link in the chain of evidence for direct sea contact between Meso-america and Ecuador during the first millennium B.C. This aspect was discussed by Coe in more detail in another publication (*Amer. Anthropol.*, Vol. LXII, No. 3, 1960), but should be emphasized as a demonstration that the significance of sea trade in very early times must not be underestimated. Over a period of many years, William Duncan Strong,

Muriel Porter and others had postulated contact between Meso-america and Peru during the Formative period on the basis of numerous resemblances in specific ceramic traits from such Meso-american sites as Playa de los Muertos and Tlatilco with Chavin ceramics in Peru. In the closing years of the last decade the work of Evans, Meggers and Estrada in the coastal zone of Ecuador produced a sequence of Formative phases—Valdivia, Chorrera, Tejar—extending back into the third millennium B.C., and featuring many ceramic traits of Meso-american character. Coe's excavations at La Victoria on the Pacific coast of Guatemala revealed a sequence of two Formative phases, Ocos and Conchas, which share numerous specific ceramic traits with Chorrera and Tejar. These shared traits include several very complex features of ceramic technology—iridescent painting in striped patterns; red and white zoned painting; negative painting; rocker-stamping; 'napkin-ring' earspools of identical form, finish and colour—as well as other less complex features such as certain vessel forms. These features are so similar that there can be no doubt that direct trade by sea was maintained between Guatemala and Ecuador at an early time. These specific ceramic traits, although perhaps culturally unimportant in themselves, are the concrete material evidence remaining of the interchange of ideas between two key areas of Nuclear America at a crucial time in the history of the development of New World civilization. It is now clear that the great regional cultures of the Classic period in both Meso-america and the Central Andes arose from a commonly shared platform of organization.

RUTH GRUHN

Tule Springs, Nevada, with Other Evidences of Pleistocene Man in North America. By Mark Raymond Harrington and Ruth DeEite Simpson. *Southwest Museum Papers No. 18, Los Angeles, 1961.* Pp. 146, maps, charts, text figs.

31

The significance of the well-known Tule Springs site in southern Nevada for paleo-American prehistory is firmly established by this final report, for it demonstrates that man was in the New World at least 30,000 years ago. Other important localities which have yielded evidence for Pleistocene man in North America are summarized, but the body of the report consists of a detailed description of the archaeological and associated geological and palaeontological evidence from several adjacent localities along the eroding banks of Las Vegas Wash, a typical dry valley in the Basin and Range Province.

The history of the site is of interest in indicating how preconceived thinking about the dating of early man and specific items of his material culture influence archaeological exploration. Palaeontological excavations in 1933 yielded an obsidian flake, a non-local material, in direct association with charcoal and the bones of extinct animals. Harrington visited the site later the same year, excavated some possible bone artifacts and one pointed bone object with a ground tip from two charcoal ash beds, and collected several crude pebble scrapers and choppers from the eroded surface near the ash beds. As several western American localities such as Folsom had already been found in which well flaked stone projectile points were associated with remains of extinct animals, the lack of 'diagnostic' artifacts and the generally poor yield at Tule Springs led to an early abandonment of the site. Two decades later, after development of the radiocarbon method, a combined sample of charcoal from Harrington's excavations and from the hitherto undisturbed matrix surrounding the obsidian flake, was determined to be more than 23,800 years old. As a result of this date, Tule Springs localities yielding bone and charcoal were test-excavated in 1955. Imbedded in one charcoal pit was a carefully retouched side scraper, and a radiocarbon date from the charcoal surrounding the scraper yielded a minimum date of more than 28,000 years.

The occupation areas on the shores of a shallow lake, where the selected remains of deer, camel, horse, ground sloth, mammoth and extinct bison were cooked, were later covered by the rising waters of the lake during a considerably wetter climatic period than now. The evidence from this and several other important sites in western North America suggests that man was utilizing available extinct animals long before the innovation of carefully flaked stone projectile points allowed him to develop a specialized big-game-hunting

economy, which we usually associate with early American man. If this is so, the prehistorian searching for really early man in America must learn to be satisfied with a meagre yield of undistinguished artifacts often recovered from deeply buried sites.

ALAN LYLE BRYAN

No Stone Unturned: An Almanac of North American Prehistory. By Louis A. Brennan. London (Gollancz), 1960.

32

Pp. xii, 370, illus. Price £1 15s.

The author explains that his first-hand experience of archaeology is limited to a restricted area in the Hudson river valley. His interest in North American archaeology has, however, been sufficiently great to lead him to read extremely widely in it, and to investigate geology, palaeontology and old-world prehistory where they impinge upon it. Armed with these data, the author takes a point of view which will provide him, as it were, with a panorama of the peopling of North America, the growing and waning of the glaciers, some details of the wanderings of the earliest comers, clues as to their meagre culture, and something of the manner in which these cultures spread and ultimately interacted one with another, finally producing those which met the eyes of the first Europeans in the 17th century. But by far the greatest part of the story is consumed in relating, as seems proper, the first 30,000 years or so of the occupation of the continent, and only a small portion is reserved for the numerous, more complex and better-known cultures of later times.

Brennan is an Americanist with a vengeance, and appears to deny that any cultural equipment whatsoever was brought by man from Asia with him to the New World. He is also strongly in favour of a considerable antiquity for him in America, which is, of course, substantiated by evidence from radio-carbon dating. That this fact was not recognized sooner seems to most of us understandable, but to Brennan is almost inexplicable. As the most illustrious protagonist for a really recent arrival of man here, Alés Hrdlička takes a heavy beating. Brennan seems to be aware that in this Hrdlička was simply a man of his time, though a very conservative one—but in the present day this treatment of him, even as the leader of a school of thought now long since defunct, seems both unnecessary and unkind. Furthermore, if Hrdlička erred in some of his opinions, Brennan himself does not seem to be entirely free of too great a dependence, for instance, upon the presence or absence of dolichocephaly as an indicator of migrations, etc. He also goes a very long way out on a limb when he suggests that cultural transfers accounting for many of the resemblances between Middle American and certain Asiatic practices and artifacts may have taken place by way of a chain of islands which, he says, recent oceanic soundings have revealed may have stretched at one time into the Pacific in the direction of Easter Island.

Whatever its faults may be, *No Stone Unturned* makes interesting, instructive and stimulating reading. It draws together into a unified and understandable picture much that is inaccessible to the layman; to the professional, it will bring new vistas, and often new lines of thought. The writing is facile in the extreme, though the use of such phrases as 'if you want to set up a psychic current across the ages, stick your finger in it and tune yourself in' will probably irritate some people on both sides of the Atlantic. The sets of figures on pp. 123 and 157 are repeated on pp. 235 and 240 respectively, and all but two of the photographs have been inserted upside-down. The bibliography is neatly annotated. The book will serve a good purpose as a popularization of a difficult subject.

KENNETH E. KIDD

Tlacuilolli: Die mexikanischen Bilderhandschriften Stil und Inhalt. By Karl A. Nowotny. Monumenta Americana III.

33

Berlin (Gebriider Mann), 1961. Pp. 287. 67 plates. Price DM 100

This is a most useful general introduction to the contents of the main Mexican codices having some special reference to religious ceremonial. It includes certain of the Mixtec histories and, importantly, the codices of the Borgia group. The black and white photo-

graphic illustration is adequate, and great care has been taken to make outlines clear. Each page of reproduction is faced by a schematic diagram showing the meaning of the pictorial symbols. The text is really composed of long descriptive captions to the plates. In this way a selection from each of the 15 documents which have been sampled for this work becomes clear to the student. The text is conservative and careful, designed more to express the safely established material for the student than to lead to new interpretations. In fact this is a book which will help to revive the study of Mexican pictographic manuscripts, so long neglected except among a few specialists.

The weaknesses are largely inherent in the necessities of production. Sampling is necessary in view of the great amount of available material, but one wishes that there had been a complete *tonalpouhalli* of 260 days at some point. It would have helped the younger students more than the quarter of a *tonalpouhalli* from the Codex Cospiano. I would question the distribution of the four directions on Plate XLVa, since it is hard to equate the rain god with the North and the death god with the South. Neither are the historical implications of Vindobonensis made clear. But these are minor blemishes in an excellent work.

C. A. BURLAND

Crow Word Lists: Crow-English and English-Crow Vocabularies. By Robert H. Lowie. Berkeley and Los Angeles (U. of California P.), 1960. Pp. x, 411. Price £2 4s.

34

This volume is intended as a companion to Lowie's extensive collection of myths, historical anecdotes and other *verbatim* material published posthumously, in *Crow and English*, under the title of *Crow Texts* (Berkeley, 1960), and like the latter owes its appearance to the devoted work of his widow, Mrs. Luella Cole Lowie. It is not intended as dictionary of the Crow language, the words and phrases treated being only those which appear in the *Texts*. The arrangement is alphabetical, which works well enough for the English section but somewhat arbitrarily for the Crow, wherein complications arise from the will-o'-the-wisp behaviour of initial consonants and prefixes; exhaustive cross-checking is recommended to the student. A selection of prefixes and suffixes, with illustrations, is given in an appendix, as are a number of Crow verbs in the present tense and infinitive. There is no phonetic key but this may be found elsewhere in Lowie's works. What does seem unfortunate is the failure to give the bibliographical reference for his *Crow Language* (R. H. Lowie, *The Crow Language: Grammatical Sketch* . . ., Univ. Calif. Publ. Amer. Arch. Ethnol., Vol. XXXIX, 1941), mentioned in passing on p. 393, since that is after all the manual without which the equipment here offered can hardly be put to effective use.

It was Lowie's great hope that later students would take up the study of Crow linguistics where he had left it. They will find ample foundations laid for their work.

GEOFFREY TURNER

Eskimo Childhood and Interpersonal Relationships: Nunivak Biographies and Genealogies. By Margaret Lantis.

35

Seattle (Amer. Ethnol. Soc.), 1960. Pp. xv, 215, 7 text figs, 10 genealogies. Price \$4.75

This study adds to the author's already published material on the Nunivak Island Eskimos. It consists of 18 short biographies of informants taken mostly in 1946, with some brought up to date as a result of a short visit ten years later. Although they are short in length, varying from 14 pages to a few paragraphs, there is good editorial comment throughout. There are important first-person descriptions of ceremonials, of changing camp affiliations, and of individual movement of persons between family groups. Throughout the biographies the growing importance of modern economic and political dominance emerges.

The author suggests: 'the usual ethnographic account of customs and social forms reveals neither individual advantage nor damage. Case material is a necessary supplement.' And: 'we have added depth and variation in meaning and response.' These data do add to the picture of the Nunivak people. However, whether psychological evaluations such as 'submissiveness,' 'loneliness,' 'hurt' and

'cautious' are warranted remains to be seen. Brittle marriages, the break-up of families and movement of children seem to have been common. Also village leaders 'not uncommonly were petty tyrants,' and there were 'inadequate checks on anti-social behavior.' The only escape was 'flight from his family or community.' In view of the high mortality rate and the mobility pattern through temporary and long-term visiting among other Eskimo groups as reported by Boas, Jenness, Mathiasen and others, the author's view of a mobility pattern for Nunivak people as one in which they 'must conform and submit or take flight' needs further explanation (especially after the author's contribution in 1953 on human ecology in the American Arctic).

Moreover, in my opinion, this work exposes two areas for further work, in fact what may prove to be the direction of northern studies to come. In the first place, the author says: 'we see not "The Nunivak Eskimos" but individuals,' which doubtless means that we see more of the Nunivak people. The biographies, by describing activities of individual persons, show statistical norms rather than the formal rules. And secondly this kind of descriptive data gives important background to a contemporary northern marginal group. Hughes's study *An Eskimo Village in the Modern World* shows this interest in the present, especially when compared with Spencer's *The North Alaskan Eskimos*. What has been needed for an adequate picture of Eskimo society and culture is detailed data from biographies as well as from observation. And this means the actual state of interaction with and dependence upon the urban world. As early as 1914, Jenness noted the amount of acculturation of some of the Alaskan Eskimo.

The experiences cited in the biographies indicate a complex system, not of Nunivak Eskimos *per se*, but of the Nunivak people in an intricate marginal stage of the modern world.

A final question is the use of Rorschach tests. These would appear to be of little use until a full descriptive appraisal of the socio-cultural system is available, as well as of the contemporary interaction system.

Despite its brevity, this work is a contribution to Eskimo ethnography. R. W. DUNNING

Mapuche Social Structure: Institutional Reintegration in a Patrilineal Society of Central Chile. By Louis C. Faron. Urbana, Ill. (U. of Illinois P.), 1961. Pp. xvi, 247

As a structural-functionalist, Professor Faron draws attention, among other things, to the composition and workings of the patrilineage. His treatment is more revealing than earlier accounts that noted only the broad principles of patrilineality and patrilocality, on which the patrilineage is based.

Elsewhere, when he deals with kinship and marital arrangements, Dr. Faron again shows the value of his approach. He gains much by switching from a traditionally ego-centred examination to an

analysis of the activities of units of kin. Thus, instead of coming to the conventional conclusion that a male ego was expected to marry his mother's brother's daughter, he points out the existence and important interactions of wife-giving and wife-receiving lineages.

It would have been interesting to see how the writer might have analysed such topics as the effects of Christian missionary activities on polygyny, native religious and ethical beliefs, education and curing.

Dr. Faron's omissions help support his denial that Mapuche culture is in a state of transition. He acknowledges that before 1884 the Araucanians were free-ranging warriors; he notes that they were thereafter forced to become peaceful farmers on circumscribed reservations; and he reports that in 1960 the National Congress of Chile voted to abolish the reservations. Yet he insists (p. 219) on treating Mapuche culture synchronically, as a successful, relatively stable, 'reintegration of traditional patterns within the matrix of reservation life.' How there can be 'reintegration' without transition he fails to say.

Dr. Faron also denies that Mapuche culture is moving in the direction of Chilean peasant culture. This is hard to understand, inasmuch as he himself gives numerous instances of the process in action. As a key example, he states on p. 108 that 'Admapu (customary law) has been brought into closer approximation with the Chilean system...'

On the whole, though, this monograph makes an important contribution towards a better understanding of Mapuche culture during the reservation period. MISCHA TITIEV

Correspondencia de Adolfo F. Bandelier. By Leslie A. White and Ignacio Bernal. Mexico (Instituto Nacional de Antropología e Historia), 1960. Pp. 323, 1 photograph

Adolph Bandelier, the Swiss-American anthropologist, was much influenced by Lewis H. Morgan's ideas on social structure, and those views governed his three papers on government, land tenure and warfare in Mexico (1877-79). In reaction to Spanish sources which pictured the Aztec state as almost an absolute monarchy, Bandelier, as Morgan's disciple, saw it as essentially democratic with control mainly vested in the *calpullis*, the vestigial and localized clans. Modern students tend to regard Mexican society as lying between those extremes, leaning more to absolutism in government at the top, but with *calpulli* dominance in land tenure and local politics.

Much of Bandelier's correspondence with Morgan and the Mexican historian J. García Icazbalceta survives. Leslie White published in 1940 that with Morgan, and in this book those parts of his penetrating introduction covering Bandelier's Mexican interests are re-published with slight revision. The second half of the book comprises Bandelier's 66 letters to Icazbalceta. They are highly illuminating. J. ERIC S. THOMPSON

ASIA

Folklore mongol: Livre premier. Textes khalkha-mongols en transcription. Edited by B. Rintchen. Asiatische Forschungen, Vol. VII. Wiesbaden (Harrassowitz), 1960. Pp. xv, 150, 1 plate. Price DM 28. Les matériaux pour l'étude du chamanisme mongol: II, Textes chamanistes bouriates. By B. Rintchen. Asiatische Forschungen, Vol. VIII. Wiesbaden (Harrassowitz), 1961. Pp. ix, 156. Price DM 20

La publication des documents folkloriques mongols, sauvés de l'oubli et de la destruction par le Professeur Rintchen, s'est poursuivie avec un volume de *Folklore mongol*, non chamaniste, qui est le bienvenu: c'est le répertoire du barde Lubsang (1885-1943) qui à la fin du siècle dernier recueillait de son grand-père, de son père et de sa mère, en même temps que le métier de devin et de rebouteux-masseur, la tradition populaire des épopées chantées et des improvisations en prose rythmée avec accompagnement de violon mongol. Dépositaire de ce vieux héritage culturel, il le développa et l'enrichit à son tour, mais mourut sans laisser d'enfant à qui le transmettre. Il y a

quelque trente ans, un mongolisant russe, P. Berlinskij, recueillait une cinquantaine des chansons du répertoire de Lubsang, à l'époque où celui-ci séjournait en territoire mongol-buriat en Union Soviétique: Le chanteur et musicien mongol *UT-dzu-Lubsan-khurli*; essai d'analyse de l'œuvre musicale-poétique orale des Mongols, avec introduction, textes, traduction russe et notes (en russe, Moscou 1933), mais cet ouvrage est difficile à trouver dans nos bibliothèques occidentales (sur lui voir G. Kara, *Notes sur le folklore mongol* dans *Acta Orientali*, Budapest, XI/1-3, 1960, p. 272 et note 5 p. 283). La présente publication est donc la première à mettre à la portée d'un large public ce patrimoine folklorique en voie d'extinction. Les matériaux étaient réunis dès 1929, mais à cette époque, un mouvement politique de réaction contre la littérature et les coutumes populaires taxées de survivances nuisibles de la société féodale contraignit leur compilateur à les garder en manuscrit: une partie même fut perdue durant cette période difficile pour lui.

Le plus long morceau (81 pp., représentant une partie seulement

de l'original: les deux tiers si l'on en croit l'introduction p. XIII, le tiers si l'on en croit le texte p. 81) est l'intéressante épopée (ou *iliger*) de *Bodi-mergen-khan*, appartenant au genre *bengsen-ü iliger* formé en Mongolie Méridionale. Les *bengsen-ü iliger*, étudiés pour la première fois par le Professeur Rintchen (*Studia mongolica* I/19, Ulan-bator 1959, 16 pp., particulièrement pp. 6 & 7), sont des récits inspirés par des romans chinois, très populaires dans leur pays d'origine (ainsi le *Roman des Trois Royaumes*, le *Roman au bord de l'eau*, les *Merveilles Anciennes et Modernes*) que les narrateurs mongols ont connu vers le 18^e et le 19^e siècles par voie orale, soit directement lorsqu'eux-mêmes savaient le chinois, soit par l'intermédiaire d'employés chinois travaillant en Mongolie. Mais les thèmes chinois sont développés, transformés, adaptés pour en faire une épopée typiquement mongole si bien que leur dépistage dans le *Bodi-mergen khan*—s'il est jamais entrepris—sera un long et difficile travail, mais qui apportera des lumières sur ce genre mal étudié. Il faut louer le Professeur Rintchen d'avoir eu recours à l'aide d'un technicien pour noter les 170 mélodies qui marquent les principaux passages du *Bodi-mergen-khan*.

Les folkloristes les trouveront avec joie groupées dans les 25 dernières pages avec des titres en français.

Les 19 autres morceaux de l'ouvrage sont de brefs contes, des poèmes etc. . . dans lesquels on retrouve des thèmes connus dans le folklore des autres peuples mongols: Buriat, Kalmuk, Ordos; ainsi celui du jeune chameau blanc à la recherche de sa mère (pp. 81-4), Geser-qan (pp. 89-91), le vieillard rusé dans *Un fieffé menteur* (pp. 99-100).

Un index des noms propres de 4 pages complète le travail. Il est à noter que la transcription ne suit pas celle adoptée par la République Populaire Mongole à laquelle l'auteur est fortement opposé et que le système des signes diacritiques n'est pas celui auquel on est généralement accoutumé.

Le deuxième volume des *Matériaux pour l'étude du chamanisme mongol* est consacré aux prières chamanistes des Mongols-Buriats: 38 proviennent des Buriats du 'Nord,' dont l'aire d'habitation est à l'Ouest du lac Baikal, centrée autour d'Irkutsk, et 18 des Buriats du 'Sud' à l'Est du Baikal, autour de Ulan-Ude (ancien Verkhneudinsk) et de Čita. Chaque texte est précédé d'un titre en français, mais l'introduction de l'ouvrage fut malencontreusement égarée lors de sa transmission à l'éditeur, et nous remercions le professeur Rintchen d'avoir bien voulu nous en adresser le résumé suivant: Ces prières chamanistes comprennent trois sortes d'appel aux esprits chamanistes:

1) des autobiographies des esprits des morts que les chamans récitent en état de transe. En effet, selon les croyances chamanistes, la connaissance des biographies des morts par accident, devenus esprits malins, et celles des Génies du clan ou de la nation donnent au chaman le pouvoir magique de les invoquer et de les commander. Certains de ces esprits sont si terribles qu'on ne les évoque que dans des cas particuliers, en leur préparant des offrandes copieuses, et qu'ordinairement on redoute même de prononcer leur nom.

2) des prières pour la guérison des malades, que le chaman adresse aux esprits des maladies telles que rougeole, variole etc. . .

3) des prières pour apaiser les esprits malins et invoquer la bienveillance des esprits protecteurs du clan.

Les prières des Buriats méridionaux donnent de plus la description de quelques rites d'initiation, tel le *šamar* (< mongol classique *šamar*), p. 128. Le Professeur Rintchen remarque aussi que les textes mentionnent le nom du fils de Činggis-qan, Čayadai-qan, et celui de sa femme Čangqulang, qui furent des chamans, et nous pouvons ainsi voir l'évolution phonétique de ces deux noms: Čayatai/Čayadai > Džagatai > Zāda (p. 127) et Čangqulang > Tsāñxalañ > Sañxilañ > Zañxalañ (id.).

Dans son index de 10 pages des noms d'esprits et de dieux, l'auteur distribue ceux-ci selon la tradition chamaniste; on y trouve des *Bilēsi* (< mo. class. *biḷigēsi*): les scribes de la chancellerie du souverain des morts Erlig-qayan; des *Burxai* (< mo. *Burqan*): les dieux; des *Tengeri* (< mo. *tāngri*): les Génies; des *Darxai* (< mo. *darqan*): des Ésege (< mo. *elge*): les Vieillards; des *Eke* (< mo. *eke*): les Aïeuls ou Aïeules du clan; des *Ezen* (< mo. *ifen*): les esprits des chamans éminents qui après leur mort sont devenus les souverains du lieu où ils sont enterrés; des noms de clans des défunts chaman; leurs noms

honorifiques, ainsi *Zārin*, *Dūrisxa* pour les hommes, *Abzā* (< mo. *abjiy-a*) et *Mandaxae* (< mo. *manduqai*) pour les femmes.

L'index topographique de 4 pages montre, par la même méthode, la spécificité des toponymes chamanistes: *baera* (< mo. *bayir-a/bayiri*): position, séjour; les lieux d'habitation des esprits, c'est à dire les lieux de sépulture des chamans; *haśsa* (< mo. *harīša*): le lieu où l'on a mis les vêtements funéraires du chaman mort, son tambour, des ongons ou des représentations des ancêtres, et où l'on fait ordinairement des offrandes pour apaiser son esprit; *degdelge*: le lieu où l'on fait le rite *degdegeki*—de l'ascension de l'esprit—à la fin de la troisième année qui suit la mort du chaman; *šixen* (< mo. *šekin* 'oreille'): les lieux qui entourent l'habitation de l'esprit du chaman défunt; ce sont habituellement des rochers où séjournent les esprits sentinelles (*šixen*) de l'âme du chaman; *ugdigan* (< mo. *ugiyalyan*): les lieux où l'esprit se baigne; *undari*: les lieux où l'esprit s'abreuve à l'eau des lacs, etc. . . ; *ujalga* (< mo. *uyaly-a*): le lieu où jadis l'on attachait son coursier etc. . . etc. . .

Le Professeur Rintchen lui-même remarque la difficulté de ces prières chamanistes et le nombre de mots jusqu'alors inconnus qu'elles contiennent. Mais il annonce en avoir déchiffré le sens et pense publier ultérieurement leur traduction. Formons le souhait qu'il réussisse ainsi à donner un couronnement à cette oeuvre.

FRANÇOISE AUBIN

Religion in Chinese Society: A Study of Contemporary Social Functions of Religion and Some of Their Historical Factors. By C. K. Yang. Berkeley and Los Angeles (U. of California P.) (London agents: C.U.P.), 1961. Pp. viii, 473. Price £3 16s.

Professor Yang has attempted to collate information from some local gazetteers, written historical documents and literary sources to show the relationship of the religious element in Chinese life to other aspects of society. Moreover, the author has had the advantage of having spent some time in the field in China. An earlier book of his, *A Chinese Village in Early Communist Transition* (1959), has already been reviewed in these columns.

There is an important place for such a study as this but Professor Yang's book cannot really be regarded as filling the gap because of its loose reasoning and weak theory. To give an example; on p. 342 there are four tables designed to show the weakening hold of religion from a decline in temple-construction. I reproduce them below but I have added the columns marked with an asterisk in which the actual number of years has been taken into account in order to arrive at an average figure.

(a) Human Province				
	Temples built		Years per temple*	
Pre-Ming	24		—	
Ming (1368-1644)	52		5.3	
Ch'ing (1644-1849)	68		3.0	
(1850-1911)	22		2.8	
Republic (1912-1928)	15		1.1	
(b) Ch'uan-sha county, Kiangsu Province (near Shanghai urban area)				
	Temples built	Years per temple*	Major temple repairs	Years per temple repair*
Ming (1368-1644)	3	90	—	—
Ch'ing (1644-1849)	6	34	—	—
(1850-1911)	34	1.9	44	1.4
Republic (1912-1925)	7	2.0	25	0.6
(1926-1936)	3	0.3	5	0.5
(c) Lo-tung county, Kwantung Province (remote rural area)				
	Temples built	Years per temple*	Major temple repairs	Years per temple repair*
Ming (1368-1644)	18	15.3	1	276
Ch'ing (1644-1849)	14	14.6	11	18.7
(1850-1911)	6	10.0	3	20.0
Republic	—	—	—	—

From these figures one must conclude that, if in fact temple-building and repair can be taken as a measure of religious vitality, then vitality increased. In Hunan, for example, during the Republic new temples were being built at the rate of one every 1.1 years whereas during the Ming they were being built only once every 5.3 years. Yet the general conclusion of the book is that religious vitality has declined and that the Communists have merely accelerated a long-term trend. This may in fact be true but it is not supported by the data which Professor Yang gives.

A more fundamental weakness, however, is the excessive dependence on the idea that religion comes into evidence to supply a specific need or gap left by a failure of State or Society. Temples are divided according to six main 'functional' groups: integration of social organizations, the moral order, economic, health, general welfare and monasteries according to the nature and powers of the god concerned. This approach is of limited sociological value because a more integrated study of local social structures is necessary in order to reveal the true 'function' of particular temples. As Professor Yang himself points out, most temples are used by the common people in order to beseech good health regardless of the particular speciality of the local deity.

Professor Yang deals with the religious side of various Chinese institutions and historical events: the family, officials, Heaven, politics, morals and religious persecution. In so doing, he covers a very wide field, draws extensively on the works of predecessors and quotes a wide and valuable variety of sources, but throughout the book, in spite of his scholarship the impression is given that religion is something extra to society and not an essential part of Chinese culture. Nevertheless, some chapters are very interesting, especially those dealing with Confucianism as a religion and not as a philosophy and he rightly castigates those scholars, both Chinese and Western, who have failed to appreciate the emotional basis of Confucianism.

WILLIAM H. NEWELL

Ritual Purification of a Balinese Temple. By J. H. Hooykaas-van Leeuwen Boonkamp. *Verhand. der Konink. Ned. Akad. van Wetenschappen, Afd. Letterkunde Nieuwe Reeks, Part LXVIII, No. 4.* Amsterdam (Noord Hollandsche Uitgevers), 1961. Pp. 81 44 drawings, 31 photographs, index.

The analytical description of certain Balinese ritual objects given in this study is like putting a part of an organism under a microscope. Something that heretofore has been seen only on the surface, if at all, suddenly reveals itself in all its tantalizing complexity. Thus Jane Belo, who in 1953 published her monograph *Bali: Temple Festival* (New York), while describing the 'symbolic sweeping' or purification (*melis*) of a temple, speaks of the dedication of the *lis*, which in her words is an 'intricately composed brush-like creation of young palm leaf.' The *lis* is the principal instrument for ceremonial purification with holy water.

Here we learn more about the *lis*. The first part of Mrs. Hooykaas's study concerns this Balinese holy-water sprinkler. The author states that, judging by the texts of relevant prayers (*mantra*), many of which are quoted and translated, the *lis* is regarded as a combination of a 'living being' and 'a magical tree enchanted by Batara Siwa.' In its totality, the *lis* itself is a sort of deity, referred to as 'Lord Yellow Green,' an allusion to the colour of young palm leaf. A detailed anatomy of the *lis* discloses that it is composed of no less than 32 parts, of which 20 make up the anthropomorphic elements and the rest, together with the *waringin* tree, represent different leaves, stalks and other plants, a dove, and other symbols potent for warding off evil. Drawings by a Balinese artist, Ida Bagus Anom of Ubud, vividly show how each component is a little masterpiece of palm-leaf-cutting and folding—an art widespread in Bali, but in this case usually executed by a daughter of a Brahman priest, *padanda*.

The second part of the study describes a variety of purificatory objects made of wood, bamboo and clay, called *eteh-eteh padudusan*, the important ritual accessories for an officiating *padanda*. These include some 40 miniature replicas of agricultural implements and domestic utensils, including pottery, spinning wheels, looms, rice troughs with pestles, etc., and another 40 replicas of offerings and cult objects.

Mrs. Hooykaas's array of minutiae in both word and picture yields to the interested student a number of insights into the nature of Balinese cults, in which the Hindu pantheon of deities and associated ideas of colours, certain numbers and symbols (often no longer understood even by the priests themselves) merge with pre-Hindu indigenous beliefs and cults. Traces of these, the author suggests, can be found in the ritual objects used in the purification ceremony. This is a most welcome contribution, complementing the Belo monograph in which a temple ceremony is treated in wider context.

CLAIRE HOLT

Caste Today. By Taya Zinkin. London (O.U.P.), 1962. Pp. [xii], 69. Price 6s.

41 This excellent little book begins by saying what caste is not—it has nothing to do with race, conquest or colour, and but a limited connexion with occupation. Its basis is religious, and the simplest definition, that of Wint, is that 'a caste is a group of families whose members can marry with each other and can eat in each other's company without risk of pollution.' Each of these groups has its place in a hierarchy. Caste has, until recently, been supported in general, if not always in particular, by all Hindus, even those of the lowest castes, since they believe that their fate after death depends on how they have observed the rules of their caste. These differ in almost every conceivable particular, but are as strict for the lowest as for the highest.

The caste system is tending to weaken in the towns, especially among the westernized, but as the vast majority of Hindus live in villages, where society is still largely dominated by the old women, it will be long before it dies out.

Mrs. Zinkin illustrates her account with many telling anecdotes and examples, and her book deserves the widest publicity.

RAGLAN

Technical Reports on Archaeological Remains. By Juliet Clutton-Brock, Vishnu-Mittre and A. N. Gulati. Poona (Deccan Coll. Post-grad. & Res. Inst.), 1961. Pp. 59, 3 plates.

42 This publication consists of three technical reports on mainly natural materials found in conjunction with archaeological remains.

The first, by Juliet Clutton-Brock (now Mrs. P. Jewell and Dr.) is on a mongoose skeleton from Langhuj, Gujarat. It is a comparative morphological and metrical study, based mainly on the jaws and teeth, resulting in determination of the specimen as *Herpestes edwardsi cf. ferrugineus*, a desert race of the species. This conclusion is of some environmental interest in connexion with the microlithic industry with which the mongoose was associated.

The second is a long paper on 'Plant Economy in Ancient Navdatoli-Maheshwar' by Vishnu-Mittre. He summarizes the scarce material and information hitherto obtainable on plant remains from archaeological sites in India and then proceeds to study the comprehensive collection before him, which includes carbonized cereals, legume seeds, fruit remains and oil seeds, of which a considerable variety was recognized at this Chalcolithic site. Some common species, however, were not found and it is inferred that they were introduced at some later period. A brief history of plant-cultivation in India is based on the information now to hand. Some excellent half-tone illustrations, a map and a number of diagrams and tables complete this contribution.

The third report is a short note, by A. N. Gulati, on the occurrence of silk fibres, preserved by contact with the beads of a copper necklace, found with a child's skeleton at Nevasa, Maharashtra State, of a date some 10 to 15 centuries B.C. They evidently represent the string on which the beads were threaded. With them was found a 'nep' of cotton fibres, showing that cotton was also in use at that time and probably that the silk was spun with the equipment normally used for cotton-spinning. Microscopical traces of millet, fungal spores and oil globules indicate the domestic, and possibly ritual, use of cattle dung and oil in purifying the person.

These contributions clearly show the value of scientific investigations of varied materials from archaeological sites, which can often add appreciably to the archaeological results proper obtained from an excavation.

I. W. CORNWALL

APPLICATION DE LA THERMODYNAMIQUE À L'EXPLICATION DE LA MÉTALLURGIE ANCIENNE*

A REPORT OF THE ANCIENT MINING AND METALLURGY COMMITTEE

JEAN R. MARÉCHAL

Ingénieur civil des Mines, Chef du laboratoire du Centre de Recherches archéologiques médiévales, Université de Caen

43 La première préoccupation de la chimie en général et de la chimie métallurgique en particulier, où la température prend une importance prépondérante, est de connaître les affinités chimiques, c'est-à-dire de prévoir le sens des réactions et les conditions des équilibres. En effet, aux hautes températures les réactions sont souvent limitées, l'affaiblissement des résistances passives permet aux systèmes de s'approcher de leur état d'équilibre et la position de celui-ci détermine le sens de la réaction et le rendement maximum possible.

En résumé, si les équilibres chimiques ne représentent qu'une partie des données qui intéressent la chimie métallurgique, ils en constituent cependant les données les plus fondamentales et forment le cadre dans lequel évoluent les réactions. M. Berthelot a inauguré le développement de la thermochimie en énonçant le principe suivant: 'Tout changement chimique accompli sans l'intervention d'une énergie étrangère tend vers la production du corps ou du système de corps qui dégage le plus de chaleur.'

En mettant l'accent sur le mot chimique, Berthelot voulait exclure les changements physiques, tels que fusion ou volatilisation qui absorbent de la chaleur. Il fallait en quelque sorte, que les substances en jeu aient le même état physique après qu'avant la réaction.

On devrait plutôt dire 'principe de la chaleur maximum' au lieu de 'principe du travail maximum' qui lui a été donné dès le début.

On reconnut vite, par la suite, que ce principe n'était rigoureux qu'au zéro absolu et se rapprochait le plus de la vérité, lorsque la température baissait de plus en plus et que l'accroissement d'entropie dans la réaction était plus faible.

La variation d'entropie est un phénomène important qu'il est bon de comprendre. L'entropie est en quelque sorte le facteur de capacité de l'énergie calorifique et elle varie chaque fois qu'il y a un changement d'état physique, liquéfaction ou volatilisation par exemple; elle est donc additive: l'entropie d'un système est la somme des entropies de ses parties et la variation d'entropie dans une réaction chimique s'obtient en faisant la différence des entropies des constituants et des produits de la réaction.

Avant Nernst, donc avant 1906, l'entropie était indéterminée en valeur absolue, on ne pouvait mesurer que ses variations. Mais depuis, elle est devenue une grandeur que l'on peut mesurer avec précision par l'analyse spectrale. Elle est en quantité croissante lorsque la température s'élève, elle est la mesure du désordre moléculaire et c'est ce qui permet son évaluation par spectrographie.

* With two text figures

Nous avons rappelé ces quelques principes pour montrer l'aide fournie par la thermo-dynamique, telle qu'on la comprend actuellement, à l'explication des phénomènes métallurgiques.

Un progrès immense a été apporté depuis quelques années, par les nouvelles tables du 'Bureau of Mines' et du 'Bureau of Standards' qui, au lieu de donner comme autrefois, les chaleurs de réactions et les variations d'entropies à la température de référence de 25°C, avec des corrections très compliquées et très difficiles d'application, fournissent actuellement les valeurs chiffrées directement aux différentes températures.

Nous diviserons cette étude en deux parties (1) celle relative aux métaux; (2) celle relative aux scories, c'est-à-dire aux produits résultant de l'élimination des matières non métalliques provenant des minerais et des corps qu'on, a pu ajouter dans le four pour faciliter cette élimination.

(1) *Métaux.* H. J. J. Ellingham a présenté dans une conférence donnée le 13 février, 1943, à Swansea,¹ des graphiques indiquant l'affinité, c'est-à-dire les énergies libres de formation des principaux métaux pour l'oxygène et pour le soufre, en fonction de la température (Ellingham, figs. 1 et 2). On voit sur la figure 1 que la courbe $C + O_2 = 2CO$ descend au lieu de monter comme les autres, cela tient au fait qu'il y a, lors de l'oxydation du carbone, augmentation de volume et de l'entropie, elle rencontre par le fait même les courbes d'oxydo-réduction des métaux dans l'ordre: or, argent, cuivre, bismuth, plomb, antimoine, nickel, cobalt, fer, étain, zinc, manganèse, silicium. (Pour l'or et l'argent, le point de rencontre est à gauche du diagramme, c'est-à-dire en dessous du zéro centigrade.)

Le professeur Pessayre de l'École des Mines de Saint-Étienne, a donné ces résultats sous une forme graphique plus commode, en portant en abscisses, les températures et en ordonnées les affinités, c'est-à-dire les diminutions d'énergie libre provoquées par les réactions, qui peuvent s'exprimer également par les sommes des chaleurs dégagées par les réactions et des produits de l'accroissement d'entropie par la température absolue ($\Delta S^\circ \times T$).

Notre figure 1, d'après Pessayre, montre quelques courbes relatives aux réactions d'oxydo-réduction pour une mole d'oxygène, à la pression atmosphérique. On constate que toutes les courbes descendent vers les températures croissantes, sauf celle de formation d'oxyde de carbone: $2C + O_2 = 2CO$, où il y a augmentation du volume gazeux et de l'entropie. D'ailleurs, cette propriété remarquable du carbone conditionne toute la métallurgie ignée.

En résumé, on peut dire que, tandis que l'affinité des

métaux pour l'oxygène décroît avec l'élévation de température, celle du carbone augmente; alors que tous les oxydes métalliques tendent à se dissocier à haute température, le carbone et l'oxygène tendent au contraire à se combiner avec plus d'intensité encore, ce qui explique que le carbone soit capable à température suffisante de réduire presque tous les oxydes. Ceci résulte du fait que si l'oxydation des métaux est accompagnée d'une diminution d'entropie, celle du carbone en oxyde de carbone est accompagnée d'une augmentation d'entropie, conséquence de la véritable vaporisation que constitue la combustion du carbone (loi de volatilité de Matignon).

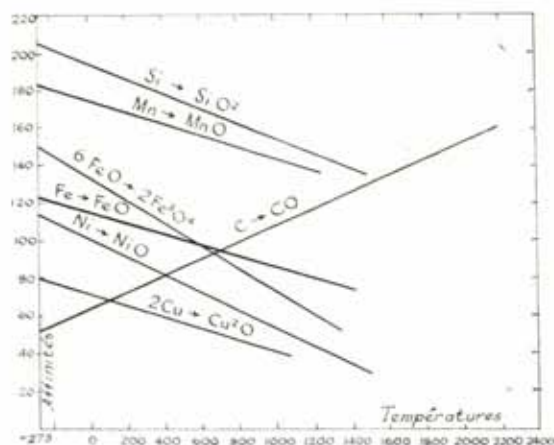


FIG. 1. DIAGRAMME DES AFFINITÉS EN FONCTION DE LA TEMPÉRATURE, D'APRÈS PESSAYRE

Les points de rencontre de la ligne $C \rightarrow CO$ avec celles de formation des oxydes, donnent les températures qu'il faut atteindre théoriquement pour que le CO réduise ces oxydes (elles sont croissantes pour le cuivre, le nickel, le fer, le manganèse et le silicium). De même, le point de rencontre des courbes $2Fe \rightarrow 2FeO$ et $6FeO \rightarrow 2Fe_3O_4$, donne la température de transformation de Fe_3O_4 en FeO . On pourra également déterminer facilement les affinités d'oxydation ou de réduction pour toutes températures.

Bientôt ces diagrammes, qu'ils soient présentés sous la forme d'Ellingham ou de Pessayre, constitueront l'introduction obligée de tout cours de métallurgie ancienne ou moderne et on peut prévoir que l'évaluation des affinités en calories deviendra aussi familière que celle des chaleurs de réactions.

Pour les métaux dont l'oxydation nécessite une faible chaleur de formation (or, argent, cuivre, bismuth, arsenic, plomb, antimoine) il suffit d'une faible quantité d'oxyde de carbone dans l'atmosphère du four pour que l'oxyde soit réduit; par contre, si la chaleur de formation s'accroît, la quantité d'oxyde de carbone doit augmenter en proportion croissante suivant l'ordre: nickel, cobalt, étain, fer, ordre pouvant varier dans une certaine mesure, avec la température du four. Les oxydes les plus réfractaires (MnO , SiO_2 , Bi_2O_3 , BaO , Al_2O_3 , BeO , MgO , CaO) ne sont plus réductibles uniquement par l'oxyde de carbone (ils sont immédiatement réoxydés par des traces d'anhydride carbonique dans l'atmosphère du four), aussi faut-il dans

ce cas, l'action plus puissante du carbone à très haute température qui peut même se combiner directement avec certains métaux pour lesquels il ont une affinité parfois considérable. L'un des cas les plus connus est celui de la carburation du fer donnant lieu à la formation de fonte, c'est-à-dire de fer ayant dissout suffisamment de carbone (avec combinaison partielle ou totale) pour devenir fusible à des températures accessibles aux époques anciennes: 1300 à 1400°C. C'est le seul cas de *fusion réductrice* dans la métallurgie du fer, où la réduction n'a pu se faire aux temps préhistoriques qu'à l'état solide et au moyen d'un gaz riche en oxyde de carbone.

Un cas intermédiaire se présente pour les métaux volatils. La réduction de l'oxyde de zinc, par exemple, est modifiée par la chaleur de vaporisation du zinc qui est élevée (31.58°C par atome-gramme) entraînant un accroissement considérable d'entropie, rendant possible la réduction de l'oxyde de zinc par les métaux fixes: fer, cobalt, nickel et cuivre à température suffisante. Les éléments volatils tels que le zinc et l'arsenic ont une affinité pour l'oxygène qui diminue avec la température, c'est pourquoi les métaux fixes, tel que le cuivre, décomposent les oxydes des éléments volatils à haute température, ce qui explique la facilité avec laquelle le zinc pénètre dans le cuivre par diffusion lorsqu'on chauffe du cuivre en présence d'un mélange de ZnO et de charbon en poudre, même à l'état solide, à plus forte raison, lorsque le cuivre est liquide, c'est-à-dire au dessus de 1083°C. On a donc pu réaliser du laiton sans avoir de zinc métallique à sa disposition.

Cette réduction en milieu réducteur n'est pas seulement possible pour l'oxyde de zinc, mais aussi pour d'autres oxydes, tel que celui d'arsenic, élément déjà volatil à 360°, ce qui démontre la possibilité que les anciens métallurgistes (énéolithiques) ont eu de réaliser des cuivres à l'arsenic contenant parfois jusqu'à 10% As ('West European dagger' de Runa Penedo, de Ponte de Lage et de Vila Nova de San Pedro, au Portugal); ce qui ne serait pas explicable par le traitement des minerais de cuivre ne contenant comme impureté que de l'arsenic, comme le cuivre natif à domeykite³ de Zwickau ou des sulfoarséniures de cuivre comme l'énargite ($4CuS.Cu_2S.As_2S_3$).

On a pu employer aussi de l'arsenic natif qui, en atmosphère réductrice, s'incorpore parfaitement au cuivre fondu. Cet arsenic naturel que les mineurs saxons appelaient 'Scherbenkobalt' ou 'Fliegenstein', la pierre qui s'envole, qui se gazéfie, est propre aux districts de Zwickau (Marienberg), de Saalfeld et du Harz.

Nous pensons que ce procédé que nous appellerons 'fusion réductrice' a été général à ces époques lointaines pour fabriquer volontairement des alliages, alors que les 'fusions oxydantes',⁴ n'ont été pratiquées que plus tard, lorsque la technique des fours métallurgiques s'est perfectionnée (peut-être à la suite de l'utilisation des souffleries) et que l'on a pu élever la température d'utilisation. C'est à ce moment que les impuretés si caractéristiques des premiers cuivres disparaissent de la composition des bronzes, sauf en ce qui concerne le nickel dont on ne parvient jamais à abaisser la teneur par oxydation, en dessous de 0.4%. Un autre cas tardif de fusion oxydante,

mais poussée jusqu'à l'élimination complète du métal prépondérant, est celui de la récupération de l'argent des plombs argentifères par le procédé de 'coupellation.' La fusion réductrice a été probablement appliquée au début de la fabrication du bronze, continuant les traditions métallurgiques précédentes et cependant l'étain n'est pas un métal volatil, puisque son point de volatilisation est très élevé: 2260°C , néanmoins la réduction de l'oxyde d'étain est possible dans ces conditions et est facilitée par la présence de cuivre,⁵ ou de nickel.⁶

La fabrication du bronze par fusion simultanée du cuivre et de l'étain à l'état métallique serait donc postérieure, ce qui est d'ailleurs encore confirmé par l'absence de lingots d'étain dans les découvertes de l'Age du Bronze et même de l'Age du Fer. On a seulement trouvé à ces époques des bronzes à hautes teneurs en étain ayant pu jouer le rôle de métal d'appoint, notamment des haches à talon atlantiques pouvant contenir jusqu'à 30% Sn, des plaquettes rondes caucasiennes (Koban-le-Haut) contenant 31% Sn, etc. Les lingots en étain pur les plus anciens remontent seulement à l'époque romaine, tel celui en forme d'astragale de St. Mawes, à Falmouth.⁷

Nous avons pu démontrer la possibilité de fabriquer des bronzes à teneurs très riches en étain en recouvrant du cuivre fondu par un mélange de cassitérite en poudre et de 10% de charbon de bois broyé. La réduction est presque instantanée. Nous avons ainsi obtenu un culot contenant 36% Sn en utilisant une cassitérite à 71.40% Sn.

Grillage oxydant. Il est évident que pour utiliser la 'fusion réductrice' telle que nous l'avons définie, il faut avoir à sa disposition des oxydes. Dans le cas du bronze, l'oxyde est naturel, c'est la cassitérite, dans celui du laiton, on peut aussi employer un minerai naturel, la calamine, ou le produit de l'oxydation du zinc dans les fours à cuivre ou à plomb utilisant des minerais de cuivre ou de plomb pollués de zinc (cadmie des fourneaux).

Les bronzes au plomb résultaient probablement de l'utilisation de minerais mixtes oxydés par grillage préalable. On peut supposer que le 'grillage oxydant' a été employé également dans la fabrication des cuivres à l'arsenic et des cuivres contenant des teneurs appréciables en arsenic, antimoine, bismuth, argent ou nickel et utilisant des minerais particuliers riches en arsenic et des 'fahlerz,' c'est-à-dire des minerais de cuivre souvent argentifères et parfois nickelifères, enrichis dans la zone filonienne de cémentation et contenant outre du cuivre, du soufre, de l'arsenic, de l'antimoine ou du bismuth. Il apparaît donc que la pratique est générale et très ancienne, elle date probablement du commencement de l'utilisation des minerais des têtes de filons et de la zone de cémentation, un peu plus profonde (au niveau de la nappe aquifère). Les oxydes produits ont donc pu être réduits directement ou être employés dans une fusion réductrice postérieure. Il fallait éviter une scorification possible à trop haute température ou en présence des fondants susceptibles d'incorporer une partie du métal très difficile à récupérer ultérieurement par un traitement de réduction simple.

Actuellement, on utilise encore la fusion réductrice d'oxydes mélangés de cuivre et de nickel provenant du

grillage d'un minerai mixte de ces deux métaux provenant de Sudbury, au Canada pour produire 'le métal Monel.'

On peut supposer que les Grecs de Bactriane ont utilisé un procédé similaire pour fabriquer les cupro-nickels ayant servi à la confection de leur monnaie, à moins que ce métal ne soit venu du Sud de la Chine, où des cupro-nickels (Paitung) ont été fabriqués anciennement, avec des minerais du district de Hweili dans la province de Sikang.⁸

L'extraction du fer de ses minerais exige une allure plus réductrice des fours et une température plus élevée. C'est ici que les notions d'affinité des métaux pour l'oxygène exprimées par la diminution d'énergie libre au cours de l'oxydation, montrent leur avantage par rapport aux chaleurs de formation des oxydes, au moyen desquelles on évaluait autrefois les affinités. En effet, celles-ci montrent des anomalies apportées par le caractère approximatif des chaleurs de formation, surtout lorsqu'elles sont très voisines, comme dans le cas des oxydes de fer et d'étain: entre 52 et 73 calories par atome d'oxygène.

On voit alors qu'à haute température les affinités du fer métallique et des oxydes de fer pour l'oxygène décroissent dans l'ordre $\text{Fe} \rightarrow \text{FeO}$, $\text{FeO} \rightarrow \text{Fe}_3\text{O}_4$, $\text{Fe}_3\text{O}_4 \rightarrow \text{Fe}_2\text{O}_3$, et que l'oxyde d'étain se montre plus réductible que l'oxyde ferreux FeO .

TABEAU (D'APRÈS H. ULICH)

$\text{ZnO} \rightarrow \text{Zn}$	83.3	calories par atome d'oxygène
$\text{Fe}_3\text{O}_4 \rightarrow \text{FeO}$	73	calories par atome d'oxygène
$\text{SnO}_2 \rightarrow \text{Sn}$	68.9	calories par atome d'oxygène
$\text{FeO} \rightarrow \text{Fe}$	64.5	calories par atome d'oxygène
$\text{NiO} \rightarrow \text{Ni}$	58.4	calories par atome d'oxygène
$\text{CoO} \rightarrow \text{Co}$	57.5	calories par atome d'oxygène
$\text{Fe}_2\text{O}_3 \rightarrow \text{Fe}_3\text{O}_4$	52.6	calories par atome d'oxygène

La première métallurgie du fer a surtout utilisé des minerais nodulaires essentiellement formés d'oxyde de fer presque exempt de silice ($\text{SiO}_2 < 10\%$) donnant des scories fusibles surtout formées de silicate de fer (fayalite: $\text{SiO}_2 \cdot 2\text{FeO}$), le fer en excès se présentant sous forme de Fe_3O_4 . L'analyse est variable suivant les minerais, mais on peut considérer que la teneur en silice varie de 15 à 30% et celle en FeO de 50 à 65%.

On peut s'étonner que les scories puissent contenir parfois autant de fer que le minerai lui-même. A première vue, l'opération apparaît non rentable, mais il faut se rappeler que les minerais employés (type nodulaire) sont très peu siliceux et que la formation de scorie est relativement faible. Ce ne sera qu'à partir du moment où on ajoute de la chaux pour neutraliser la silice des minerais acides que le volume de scorie augmente.

Prenons un exemple: en utilisant 100 Kg de minerai à 50% Fe et 5% SiO_2 , on obtiendra 42.5 Kg de fer, plus 7.5 Kg de fer nécessaire pour saturer les 5% de SiO_2 . Le rendement sera donc de $\frac{42.5}{50} \times 100 = 85\%$, ce qui est intéressant.

Les conditions de fabrication du fer étaient donc toutes autres que maintenant et elles se sont maintenues jusqu'au moment de la découverte de la méthode indirecte, c'est-à-dire en passant par le stade intermédiaire de la fonte que l'on oxyde ensuite dans un four d'affinage (méthode

wallonne). Il est à noter également que l'on n'a réussi à fondre le fer plus ou moins carburé qu'à une époque relativement récente (acier Wootz et acier de Sheffield) et que la fabrication sur une échelle industrielle de l'acier coulé n'a commencé qu'à partir du milieu du XIX^e siècle.

Autrefois, on ne pouvait réduire les minerais qu'à une température inférieure au point de fusion du fer et ce dernier apparaissait sous forme solide en fragments que l'on réunissaient par un martelage ultérieur à chaud, pour former une 'loupe' plus ou moins importante suivant la capacité du four.

Nous avons vu qu'en général, les minerais utilisés en Europe à l'époque préhistorique étaient formés d'oxydes de fer hydratés (hématite) contenant peu de silice, dont la fusion donnait du fer très pur et une scorie composée essentiellement de silicate de fer (fayalite). Il était impossible dans ces conditions d'éliminer le phosphore et le soufre, la scorie étant beaucoup trop acide, mais heureusement que les minerais employés étaient exempts de soufre. Le Fe_2O_3 passait par le stade intermédiaire FeO avant d'être complètement réduit et il fallait éviter une scorification trop poussée du FeO produit, le FeO dissous dans la scorie étant beaucoup plus difficile à réduire, surtout en présence de MnO . Si même le minerai contenait du manganèse, la scorie acide favorisait son oxydation et son passage dans la scorie. Cette acidité favorisait donc l'incorporation du phosphore dans le fer et au contraire l'entravait pour le manganèse (M. Rey, 1939, pp. 144-50).

Il est donc normal que le fer fabriqué de cette façon contienne du phosphore, il ne pouvait en être autrement, étant considéré la composition des minerais employés et l'acidité de la scorie. J. Myers s'était déjà étonné de ce fait en analysant des barres de fer pré-romaines trouvées dans le village préhistorique de Worthy Down, près de Winchester, dans le Hampshire.⁹ D'ailleurs, le phosphore offrait certains avantages tout au moins pour les fers contenant généralement peu de carbone: facilité de soudage; possibilité de durcissement.

Malheureusement, lorsque la teneur en carbone s'élevait, ces avantages disparaissaient pour faire place à de sérieux inconvénients: on sait que le carbone en présence de phosphore rend le fer cassant (fer rouvrain), il ne pouvait donc être question de fabriquer de l'acier avec ces minerais, ces deux éléments s'excluaient en quelque sorte.¹⁰ Il fallait utiliser d'autres minerais exempts de phosphore et de soufre. Ces minerais se rencontrent dans certaines régions, notamment dans les districts à minerais carbonatés, généralement manganésifères (minerais spathiques), sinon il fallait employer des scories nettement plus basiques en incorporant de la chaux au lit de fusion.¹¹ On peut donc dire que la fabrication de l'acier naturel n'a pu commencer qu'à partir du moment où on a employé les minerais spathiques du Siegerland, de Styrie ou de Carinthie, ce que l'on peut détecter par l'analyse des scories. On voit donc encore la nécessité d'analyser de nombreux échantillons provenant de régions diverses, pour résoudre la question de la découverte de l'acier. De même, à partir du moment où on constate la présence de chaux dans les scories (teneurs supérieures à 5% environ), on peut dire

que l'on a pu fabriquer de l'acier ou de la fonte et cela nous reporte à la fin du Moyen Age. Comment dans ces conditions a-t-on pu avoir de l'acier aux époques antérieures? Ce n'est que par cémentation et encore fallait-il cémenter des aciers contenant moins de 0.10% P.

On rencontre dans certains districts du centre de la péninsule scandinave des oligistes et des magnétites particulièrement pures, exemptes de soufre et de phosphore qui ont pu servir à la fabrication des épées du haut moyen âge, en acier à très hautes teneurs en carbone que l'on a rencontré, notamment en Norvège.¹² Ce sont ces mêmes minerais qui expliquent le monopole de certaines régions et la réputation des aciers de Sheffield réalisés au XVIII^e siècle par fusion de fers suédois très purs, cémentés en Angleterre à cet usage.¹³ Le développement des souffleries a favorisé cette évolution en permettant la carburation du fer en présence de scories appropriées et a un moment donné, où la température atteinte a été suffisante, on est parvenu à fondre ce fer carburé, l'augmentation de la teneur en carbone amenant corrélativement un abaissement de température de fusion du métal. La première fonte obtenue était blanche, c'est-à-dire que le carbone y était présent sous forme de carbure de fer Fe_3C et inutilisable en fonderie.

C'est la grande découverte des Wallons d'avoir pu transformer cette fonte en fer ou en acier par un procédé oxydant le carbure et les impuretés en excès. Ce procédé apporté en Suède par des ouvriers wallons a permis l'essor de la métallurgie de ce pays jouissant de minerais exceptionnellement exempts de phosphore et de soufre. Il faudra l'invention de Thomas pour pouvoir réutiliser des minerais phosphoreux, ce qui nous reporte dans la seconde moitié du XIX^e siècle.

Les fontes anciennes se classent en deux catégories distinctes, mais en général elles sont caractérisées par des teneurs en carbone plus élevées et plus faibles en silicium que les fontes modernes. Cela est dû au fait que la température atteinte était moindre qu'actuellement, où elle peut dépasser 1650°C. L'allure était 'froide,' c'est-à-dire que l'on n'utilisait que du vent froid et comme combustible le charbon de bois (l'utilisation du coke n'a débuté qu'au XVIII^e siècle).

Les deux catégories sont: (1) les fontes d'affinage dites blanches, c'est-à-dire où le carbone est combiné sous la forme de carbure de fer (Fe_3C), destinées à être transformées en fer ou en acier; (2) les fontes de moulage destinées à réaliser des pièces coulées en fonte dite 'grise,' où une partie du carbure de fer est décomposé avec formation du graphite, ou 'noire,' lorsque tout le carbone est à l'état de graphite. Cet effet est dû à une augmentation de la teneur en silicium corrélatrice à une élévation de température (à partir de la fin du XVII^e siècle).

La réduction de la silice n'est possible qu'à partir de la température d'inversion de la réaction:



D'après la formule de Clapeyron-Carnot, cette température théorique est de 1883°C, mais la réduction peut commencer à une température inférieure. La répartition

du silicium entre la fonte et le laitier dépend donc étroitement de la température de 'l'ouvrage' du haut-fourneau, c'est-à-dire de l'endroit où la température est la plus élevée, un peu au dessus du niveau des tuyères d'arrivée de l'air soufflé et aussi de la composition du laitier, c'est-à-dire de son acidité. La silice est en effet d'autant plus difficile à réduire que le laitier en contient moins et qu'elle est neutralisée et stabilisée par des bases plus énergiques, telle que la chaux (CaO).

Outre le silicium, les autres éléments normaux de la fonte: manganèse, soufre jouent un certain rôle dans la structure finale de coulée. Le phosphore améliore la coulabilité, mais n'influence que peu la décomposition du carbure de fer. Par contre, dans certains districts belges et champenois, où le minerai contient un peu de zinc, on est parvenu à compenser l'insuffisance de silicium, par la présence de faibles quantités de cet élément, ce qui a permis le développement de la poterie de fonte à parois minces en fonte grise de bonne qualité. De même, l'arsenic peut jouer un rôle analogue (Fontes de Berlin).

Fusions oxydantes. Nous voyons donc que la plupart des opérations métallurgiques sont réductrices, mais la fusion oxydante peut permettre la purification de certains métaux et alliages.

On peut ainsi éliminer certaines impuretés du cuivre par formation d'oxydes volatils (S, As, Sb, Bi, Zn) ou par scorification (Fe, Co). Seul le nickel est plus difficile à éliminer complètement, on ne parvient pas à descendre en dessous de 0.40%.

Certains oxydes résistent également à l'élimination, lorsqu'ils se trouvent associés; par exemple: les oxydes d'antimoine, d'arsenic, de nickel et de cuivre. Il se forme alors des antimoniatés ou des arséniatés complexes dont le plus connu est le 'mica du cuivre.' Ils sont alors liés par des affinités puissantes et offrent une stabilité remarquable. Malheureusement, ils donnent une grande fragilité au cuivre. Ces cuivres 'micacés' ne peuvent servir qu'à créer des cuivres alliés par fusion réductrice. Nous avons donné le nom de 'hampite' au plus connu de ces composés en mémoire du célèbre métallurgiste Hampe qui l'a décrit pour la première fois et lui a donné la formule: $6\text{Cu}_2\text{O} \cdot \text{Sb}_2\text{O}_3 + 8\text{NiO} \cdot \text{Sb}_2\text{O}_3$. C'est donc un antimoniate double de cuivre et de nickel dont la figure 2 montre l'aspect (au grossissement $\times 145$) après polissage et attaque par une solution aqueuse de persulfate ammonique. Nous avons rencontré ce composé dans des cuivres provenant du Harz (vallée de la Lauten).

Un autre cas de fusion oxydante employé par les Anciens est celui de l'extraction de l'argent du plomb par coupellation et il faut compter les litharges imprégnant les coupelles anciennes parmi les oxydes destinés à être récupérés par fusion réductrice. Il est évident que dans ce cas la composition des scories s'en ressent et montre des teneurs élevées en anhydride phosphorique. Des analyses de scories plombées provenant du Mont Lozère indiquent des teneurs de 8.17% P_2O_5 et de 21.67% CaO, ce qui laisserait supposer le réemploi d'anciennes coupelles et pourtant ces scories ont été rencontrées à plus de 1300 mètres d'altitude!

Enfin, la fusion oxydante a été employée plus récemment pour transformer la fonte en fer ou en acier par le procédé wallon au XVI^e siècle, par le puddlage au XVIII^e siècle et enfin par les procédés Bessemer, Thomas et Martin au XIX^e siècle.

(2) *Scories.* L'étude des scories anciennes se prête bien aux considérations thermodynamiques. On peut les classer en deux grandes catégories: (1) Scories riches en oxyde ferreux (FeO) formées essentiellement de fayalite ($\text{SiO}_2 \cdot 2\text{FeO}$), le fer en excès se présentant sous forme de magnétite (Fe_3O_4). La teneur en silice varie de 15 à 30% et celle en FeO de 30 à 65%. Le point de fusion est relativement bas: 1180 à 1215°C. Ces scories ne proviennent pas seulement de l'extraction du fer, mais caractérisent également les métallurgies du cuivre et du plomb, dans ce cas la présence de ces éléments les différencient des premières. Il y a une 'contamination' de la scorie en raison inverse de la pureté du métal à obtenir. (2) Scories contenant outre l'oxyde ferreux, des bases intentionnellement ajoutées au lit de fusion: chaux, magnésie ou baryte, dans le but de faciliter la fusion des gangues et la séparation du métal réduit. Ces additions apparaissent d'abord dans la métallurgie du cuivre et du plomb, avant celle du fer (voir scories cuivreuses de la région de Pörsneck, en Thuringe et plombées du Mont Lozère, dans le Midi de la France). Les scories prennent alors un autre aspect plus vitreux, la couleur varie du noir (pour FeO compris entre 30 et 40%) au bleu ou au vert (pour FeO inférieur à 20%).

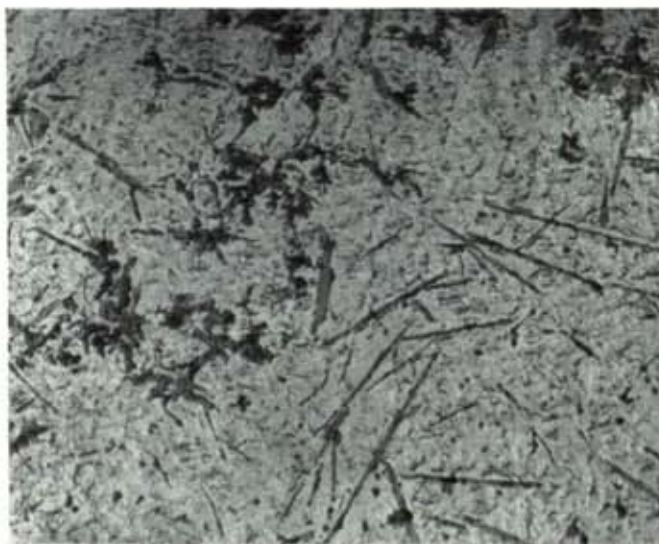


FIG. 2. AIGUILLES DE HAMPITE

Attaque solution aqueuse persulfate ammonique. Grossissement $\times 145$. Photograph: J. Maréchal

Nous avons adopté un terme ancien pour désigner ces scories: 'clines.' Plus récemment ces 'clines' passent aux laitiers plus clairs encore, et à teneurs en fer plus basses (1 à 2% FeO), mais nous entrons alors dans la métallurgie moderne.

Les 'clines' se caractérisent par une analyse différente

des scories; elles contiennent plus de chaux montrant l'emploi intentionnel de fondants basiques:

SiO_2 : 60 à 65%

Al_2O_3 : < 20%

FeO : 8.5 à 25%

$\text{CaO} + \text{MgO}$: 5 à 20%

La moindre teneur en oxyde de fer des clines et des laitiers et la présence de chaux et de magnésie permet une certaine désulfuration. Il se forme un sulfure calcique CaS qui ne peut coexister avec l'oxyde de fer:



Si on applique le 'degré de saturation'

$$S = \frac{\Sigma \text{RO}}{\text{SiO}_2}$$

où RO représente la somme des teneurs en oxydes basiques: CaO , FeO , MnO , PbO , etc., les deux catégories ci-dessus se distinguent par la valeur de cet indice:

Catégorie 1 $S \geq 1$

Catégorie 2 $S < 1$

CONCLUSIONS

Les considérations théoriques que nous venons d'exposer brièvement permettent d'expliquer l'évolution des métallurgies anciennes du cuivre, de l'étain, du plomb et du fer déjà commandées par les nécessités métallogéniques que nous avons exposées dans des travaux antérieurs publiés dans les revues *Ogam*, *Métaux et Civilisations*, dans divers congrès, notamment ceux des Sociétés Savantes de Rouen, de Dijon et de Chambéry, au VI^e Congrès International

des Sciences Anthropologiques et Ethnologiques, au I^{er} Symposium international sur l'étude des mégalithes, de St Germain (1961) et au Congrès préhistorique de France, tenu à Rennes en septembre, 1961.

Nous espérons que ces recherches techniques se poursuivent, malheureusement les métallurgistes spécialisés se consacrent trop peu à ces études désintéressées. Nous souhaitons qu'il se forme un comité d'étude pour coordonner les tentatives actuellement en cours.

Notes

¹ H. J. J. Ellingham, 'Reducibility of Oxides and Sulphides in Metallurgical Processes,' *J. Soc. Chem. Ind., Trans. and Comm.*, May, 1944, p. 127.

² Renseignements communiqués par Mr. Sangmeister, par lettre du 23 Mai, 1960.

³ La domeykite a comme formule Cu_3As et contient 23% As.

⁴ La fusion oxydante élimine les principales impuretés du cuivre par formation d'oxydes volatils (S, Zn, As, Sb, Bi) ou scorifiables (Fe, Co).

⁵ M. Rey, *Équilibres chimiques et métallurgie*, 1939, p. 165.

⁶ M. Rey, *ibid.*, p. 172.

⁷ W. Gowland, 'The Metals in Antiquity,' *J. R. Anthropol. Inst.*, Vol. XLII (1912).

⁸ C. F. Cheng et M. Schwitter, 'Nickel in Ancient Bronzes,' *Amer. J. Arch.*, 1957, 61 pp.

⁹ J. Myers, *J. Soc. Chem. Ind.*, Vol. XII (1932), p. 133.

¹⁰ J. Garnier, *Le fer*, Paris, 1878, p. 127.

¹¹ Les scories basiques favorisent d'ailleurs l'incorporation du manganèse dans le fer (M. Rey, 1939, p. 149).

¹² T. D. Hauge, *Blesterbruk og Myrjern*, Oslo, 1946, tableau 9, pp. 179-182.

¹³ Jean R. Maréchal, 'Evolution de la fabrication de la fonte en Europe et ses relations avec la méthode wallonne d'affinage,' *Colloque International de Nancy 1955, Le fer à travers les âges*, reproduit dans *Techniques et Civilisations*, 22 (1955).

FURTHER HUMAN REMAINS FROM THE CENTRAL AFRICAN LATER STONE AGE*

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44 Although archaeological investigations in Central Africa during the past three decades or so have made it possible to speak with some authority about the course of cultural development in that area, we still know comparatively little regarding man's physical history there prior to the Iron Age. With no human skeletal material of certain Pleistocene date other than the Broken Hill skull, whose phylogenetic position is not entirely clear, almost nothing can be said concerning the precursors of *Homo sapiens* in this part of the continent. It is only during the post-Pleistocene era, the Later Stone Age, that a few human remains begin to appear. These represent hunting and gathering people who had no knowledge of food-producing techniques as far as we can determine and who certainly were ignorant of metallurgy. Their immediate successors were iron-working agriculturists who are

* With three text figures

presumed to have entered the southern sub-continent from the north and who belonged to a distinctly different racial type. The earliest of such Negro Iron Age populations appeared no earlier than the first few centuries A.D. (Clark, 1959, p. 285), gradually replacing or absorbing most of the later Stone Age hunters. There are indications that acculturation exceeded the rate of hybridization or perhaps even immigration in some regions, where one finds a continuation of indigenous physical types within an Iron Age context (Galloway, 1937a; Tobias, 1958). No really conclusive evidence has been produced to show that Negroes² occupied any part of southern Africa before the introduction of Iron Age cultures. As for the make-up of earlier populations, only a handful of Later Stone Age human remains is available, and the majority of these are from South Africa.

It has been said that by the later part of the Upper

Pleistocene, or Middle Stone Age, more than one *sapiens* type was already established in southern Africa (Wells, 1952), although the frequent lack of sufficiently good stratigraphical associations and disagreement as to the relative significance of osteometric variations have frustrated all attempts to place their interrelationships on a firm footing. Bushmanoid forms probably were present and may have been derived from the early Upper Pleistocene 'Rhodesoid' stock represented by the Broken Hill and Hopefield fossils (Tobias, 1961a). The 'Boskopoid' variety (Gear, 1925; Galloway, 1937b) has been considered by some as ancestral to the Bush type and by others as a divergent line of development, but Singer (1958) argues that virtually all 'Boskopoid' characteristics fall within the Bush and Hottentot ranges of variation. Other skeletal materials have been classified as 'Australoid,' although not very convincingly. These, too, may not be outside the scope of Bush and Hottentot ranges.

Whatever their ancestry, men of the Later Stone Age appear to have been predominantly Bushmanoid in physical type, although one or two other variants may come into the record as well. One is a 'Caucasoid,' or 'Erythriote,' stock related (in appearance if nothing else) to certain Mesolithic and Neolithic East Africans described by Leakey (1935). The Wilton skulls from the Matjes River rock shelter on the Cape (Meiring, 1937), the Kakamas Hottentots of the Orange River and the Herero of South-West Africa have been cited as possible representatives of an extension of such groups southward into the Union. In Central Africa, the Later Stone Age Hora II skeleton from Nyasaland and the Mumbwa IV3 skull from Northern Rhodesia likewise seem to parallel these long, narrow-headed crania from East Africa. However, it probably should be regarded as questionable whether these Central and South African 'Caucasoids' reflect an intrusion of new peoples from the north-east or simply variations within the original population. Singer (1958, p. 174), for example, states that many of the Kakamas people are known historically to have been mixtures of Bushman, Hottentot and Negro.

One must reckon also with Pygmoid peoples in Central Africa, in spite of the fact that their origins and precise affiliations are obscure (but see Toerien, 1961). One is forced to admit even on the basis of historical and ethnographical evidence alone that Negritos must have played a significant role in this area during the later prehistoric period. A possible association of a Pygmoid type with the Later Stone Age has been reported from Northern Rhodesia (Clark and Toerien, 1955).

Some notion of population distribution in Central Africa at the time of the Negro immigrations that introduced the Iron Age can be obtained from Iron Age skeletal remains, in which lingering Bushmanoid (or so-called 'Bush-Boskopoid') traits can be traced all the way from Southern Rhodesia (Wells, 1939; Tobias, 1958) to Tanganyika (Galloway, 1933). A number of tribes are said to retain some of these traits even now. Among them are the Tonga and Twa of Northern Rhodesia and the Sandawe of Tanganyika. Oral tradition in several Northern Rhodesian

tribes refers to 'yellow-skinned dwarfs' who had earlier occupied the area, and some historical documents attest the presence of Pygmies in northern parts of the territory (Clark, 1950). There is still a group of Hukwe Bushmen living in the extreme south-west corner of the country (Clark, 1951). These shreds of evidence, while not conclusive in themselves, do serve to strengthen the assumption that marginal peoples like the Bushmen and Pygmies had at one time a much wider distribution than they do today.

The quantity of human remains pertaining directly to the Later Stone Age in Central Africa is regrettably small, and the majority of them have come from Northern Rhodesia.

The Italian Scientific Expedition's collection from the Mumbwa Caves included remains of a number of individuals, but only three skulls could be reconstructed well enough for descriptive purposes (Dart and del Grande, 1931; Jones, 1940; Wells, 1950). Their respective ages are not entirely certain, although Clark (1942) dated them by analogy with his own stratigraphic observations based on later excavations. Two of the crania, IV1 and IV2, may be either late Middle Stone Age or Later Stone Age, while the third, IV3, belongs either to the Later Stone Age or to the early Iron Age. Most of the Mumbwa material has been treated as essentially Bushmanoid, but Wells compares the hyperdolichocephalic IV3 skull with Leakey's Neolithic II cranium from Willey's Kopje in Kenya and with Dreyer and Meiring's (1937) Kakamas Hottentots.

A smaller series of human remains has been retrieved over a period of time from a deep rock fissure at Chipongwe, just south of Lusaka (Clark and Toerien, 1955). Chipongwe I, which comprises part of a face and braincase, was described by Wells as Bush, but Toerien attributes it to a Pygmy on the basis of its high cephalic and orbital indices. A second skull and other bones, found later, are designated as more Bushman-like, in spite of a pronounced degree of prognathism in this other cranium. The date of these materials is questionable, although stone tools found in the cave seem to be from a late and degenerate Later Stone Age industry. Particularly since pottery was associated with them, it is suggested that this may have been a refuge site.

Just outside Livingstone on the Maramba River, Desmond Clark excavated a contracted burial which had been exposed and partially destroyed by erosion. The bones were heavily fossilized and may antedate the Later Stone Age. The skull was too fragmented for reconstruction, but it has been described as Bushmanoid in most features (Wells, 1950).

A single occipital fragment from Leopard's Hill Cave near Lusaka has been accepted as Bush, although its chronological position is not clear.

In 1950, Clark found two human skeletons in a Nachikufan site at Hora Mountain in Nyasaland. Still not published in detail, they have been described briefly by Wells (1957). Hora I, the skeleton of a young male, has been likened to the East African physical type mentioned above. Hora II, the remains of a young woman, may incorporate some of these same features with others of Bush derivation.

Tobias (1958) describes a skull (No. 7418) from Inyanga in Southern Rhodesia that may be of Later Stone Age date. Both the cranium and the associated mandible are of Bush type, but the skull is said to have a few 'Boskopoid' and Negro characteristics. A femur length of 457 mm. suggests that stature must have been intermediate to modern Bushmen and Negroes, an attribute that many Later Stone Age people seem to have shared.

Ignoring the very fragmentary Leopard's Hill specimen, one finds that there is a total of nine Later Stone Age crania from Central Africa reported in the literature. Almost all of them are incomplete, and some are not satisfactorily dated. In two-thirds of the skulls, the morphology is overwhelmingly Bushmanoid. Mumbwa IV3, which may be Iron Age, and Hora I display traits allying them with more or less contemporary East Africans, and Chipongwe I may include a Pygmoid increment. All in all, this is not a very convincing sample upon which to reconstruct the populations of Central Africa during this final phase of the Stone Age.

In the course of excavating a Wilton site in the Kafue basin during 1960-61, I recovered a series of human remains which substantially increases the amount of Later Stone Age osteological material. The geographical range of known specimens, which are still heavily concentrated in the southern portion of Northern Rhodesia (fig. 1), has not been extended, and this is a seriously restrictive defect insofar as the quality of our Central African data is concerned.



FIG. 1. DISTRIBUTION OF STONE AGE HUMAN REMAINS IN CENTRAL AFRICA

1, Broken Hill; 2, Mumbwa; 3, Leopard's Hill; 4, Chipongwe; 5, Lochinvar; 6, Maramba; 7, Hora Mountain; 8, Inyanga

The site is a hot-spring mound on Lochinvar Ranch, a European-owned cattle estate and game reserve, which lies between Mazabuka and Namwala on the southern margin of the Kafue Flats. In addition to large quantities of faunal and cultural debris, 14 human skeletons and very fragmentary remains of two other individuals were found. The high mineral content of the spring, whose source appears to be beneath the mound, undoubtedly contributed

to the preservation of bone. Most of the skeletons were fossilized to some extent and lay at depths ranging from a few inches to five feet below the present ground surface. No human bones occurred in the bottom few feet of the site, although animal bone was plentiful. The state of preservation varied from poor to reasonably good. Since the stratigraphy revealed no signs of deep graves, it is believed that the bodies were placed in shallow pits and perhaps covered with brush to discourage scavengers. A few of the bodies had been disturbed after burial. Two skeletons lacked heads altogether, and missing or broken bones were noted in other instances. Little care appears to have been exercised in disposing of the dead, who were accompanied by no grave goods (although a few were stained with red ochre). They lay in a variety of positions—flexed, semi-flexed, dorsally extended and ventrally extended.

The cultural associations were entirely Northern Rhodesian Wilton, with the usual crescentic microliths, somewhat nondescript scrapers, *outils écaillés*, flakes, flake-blades, cores and chipping debris. There was an interesting assemblage of querns and hand rubbers, a couple of wooden digging sticks, three ground stone axes, a stone ear or lip plug, and a profusion of shell beads. Nothing, excepting a single potsherd from the topsoil, appears to relate to the Iron Age. A charcoal sample found in association with skeleton III has now been dated at 4700 ± 100 years (c. 2750 B.C.; UCLA-174).

No attempt will be made in this brief and general report to describe the human remains in a thorough fashion,³ but a few comments about them might be of interest as a supplement to earlier accounts of Later Stone Age physical types.

To summarize the Lochinvar cranial specimens quantitatively, there are six skulls—all damaged but suitable for analysis—with more or less complete mandibles, portions of four other skulls and associated jaws or jaw fragments from which some comparative conclusions may be drawn, and badly fragmented skulls, jaws and teeth from two further skeletons. One individual is represented only by part of a mandible and another by a few small cranial fragments and six teeth. As already stated, two of the skeletons were without skulls and mandibles were found. It is conceivable that the partial jaw and/or the loose skull fragments and teeth belong to one of these skeletons, which occurred at about the same depth. The second headless skeleton lay at an appreciably greater depth. The state of preservation of the post-cranial skeletons varied considerably. Some were badly broken and disintegrated, while others were almost complete. The more cancellous bones, or portions of bones, such as long-bone epiphyses and vertebrae, were frequently too badly deteriorated to save.

Some idea of the stature of these people was obtained by measuring intact long bones and applying the equations given by Trotter and Gleser (1958) for estimating living height. Their figures pertain to 577 American Negro war dead in which stature was measured before death and long-bone length after death. Since the Lochinvar group represents a population for which there are no comparative

figures, the formulae derived in this study seem most applicable. While it cannot be argued that the American Negro is to be equated with a prehistoric African population of largely non-Negro affinities, the sample employed by Trotter and Gleser is by far the largest for any non-White racial group and should give figures which, if not entirely accurate, are at least satisfactory approximations. Most earlier studies were based on small cadaver samples of Europeans whose living statures were unknown.

Using long bones suitable for measurement from ten (seven males and three females) of the Lochinvar skeletons, the total range of estimated stature was found to be from 1388 to 1695 mm. (54.6 to 66.7 inches). Division of this sample into two parts on the basis of sex determinations shows that the average height of males was slightly over 5 feet 5 inches and the average height of females just under 4 feet 9 inches. The male average is considerably in excess of that cited by Hooton (1946, p. 628) for living Bushmen, and individually the Lochinvar males are 6-10 inches taller. The average stature of the Lochinvar females is almost identical with that of male Bushmen.

The age and sex of Lochinvar inhabitants, insofar as they can be determined, show a preponderance of males (eight males, five females, three questionable) and an apparently short life expectancy for adults. The ages range from 17 or 18 years to early middle age, and the majority were young adults under 35 years of age. The average age at the time of death seems not to have exceeded 30 years and may have been less. Although age estimates are not given for other Central African human remains, only the Mumbwa IV1 skull is described as having belonged to a someone of fairly advanced age, so this appears not to be unusual.

The causes of death are unknown, but one finds no indication of violence to suggest that either warfare or hunting accidents accounted for any proportion of the fatalities (although admittedly such incidents would not necessarily leave any skeletal traces). Intensive warfare in any case probably was no more characteristic of these people than of historic Bushmen. The significance of hunting patterns would seem to have been slight, since among all the fauna represented at the site in some abundance only buffalo and rhinoceros could be considered dangerous animals. One would have good cause to suspect that disease was a leading cause of death in an area where so many tropical afflictions are endemic today, but some of the diseases common in modern times may not have been so then. It is likely that certain diseases have been fostered by population increases, permanent housing, agricultural practices and clothing that relate only to later Iron Age peoples. Starvation is a possibility also, but in view of the particular environment, which if anything has deteriorated since the Later Stone Age in terms of natural food resources, this is unlikely to have been as much a problem as it has been among agricultural populations of Central Africa.

No bone pathologies, even fractures, were noted in the skeletal remains except for a two-inch groove and slight depression on the frontal bone of the skull illustrated in fig. 3. This appears to have healed, and there is no evidence

that it contributed to the individual's death. There is an amazing degree of dental attrition which may have resulted from grit introduced into the diet by grinding seeds, nuts and roots with stone grinding equipment. The amount of vegetable foods gathered and prepared in this manner must have been appreciable if one is to judge by the archaeological evidence. Excessive wear of the tooth crowns seems to be typical of the South African Bushmen as well (Tobias, 1961b). Most of the individuals had minor caries, especially on the labial surfaces of the teeth.

Generally speaking, the Lochinvar crania have more Bush than Negro affiliations. All share low dolichocephalic cranial indices, essentially ovoid skull contour, restricted frontal width, more or less vertical forehead, wide inter-orbital diameter, medium nasal length, orthognathism (excepting one fragmentary skull), face of moderate length, relatively light-weight mandible, and rather small teeth. In other characteristics, such as parietal bossing, nasal and orbital shape, palate depth, mastoid size and cranial height, there is some variation. The distinctions between the skulls are such that one does not get the impression of a genetically homogeneous population. In fact, the question arises whether we can accept them as representative of a single breeding population. It is possible that more than one is represented at Lochinvar, in spite of cultural similarities. Remains of six persons were found between the 36-inch and 60-inch levels and the rest in the uppermost 18 inches of the mound. The best-preserved cranium in the later series is fairly typical Bush (fig. 2),



FIG. 2. LOCHINVAR VI, MALE CRANIUM

while the best example from the earlier series varies in the direction of what one might call Hottentot. This other skull (fig. 3) has a longer and higher vault, deeper palate, larger mastoids, much higher orbital index (quadrilateral rather than rectangular orbits), narrower face, and longer, narrower nasal aperture. Both upper and total facial lengths are comparable in the two skulls. These differences may not mean a great deal, and it does appear that all the specimens are of the 'robust Bushmanoid' variety to which most Central African pre-Iron Age crania belong.

The remnants of one skull, however, present something of an anomaly in the degree of alveolar and mandibular prognathism displayed. Although this is more characteristically Negro than Bush, both the Chipongwe II skull and the Inyanga skull are quite prognathous and are described as primarily Bushmanoid.



FIG. 3. LOCHINVAR II, MALE CRANIUM

Measurements of the larger-headed Lochinvar type correspond very well with the average figures for length, width and frontal breadth of Hottentot crania given by Singer (1958, p. 176). In appearance at least, this form of skull does not compare very well with Mumbwa IV₃ or any of Leakey's mesolithic and neolithic crania. The nasal bones are much more flattened, the forehead more prominent, and the degree of dolichocephaly less pronounced. Whether one should use the term 'Hottentot' is questionable. Classification of both historic and prehistoric populations indigenous to southern Africa depends to a large extent upon the status of Hottentots as a physical type, since a number of authorities have regarded them as Bush-Negro hybrids (or in some instances as East African immigrants). If one takes this viewpoint and defines certain Later Stone Age types as Hottentot, the presence of Negroes must be taken for granted. If, on the other hand, Hottentots are considered to be simply a sub-racial strain within the Bushmanoid stock, the presence or absence of Negroes must be resolved on the basis of other prehistoric evidence.

In essence, the problem of sorting out Middle and Later Stone Age human remains in southern Africa is the old one of defining race with nothing but skeletal material. Theoretically, one should define prehistoric races as one would define living ones—at the population level. However, none of the existing South or Central African series can be legitimately regarded as a representative sample of any population. One significant fact is that there exists considerable variation not only between these small and scattered groups but also within them, and this should underscore the importance of making sufficient allowances for physical variability. Such variation is to be expected

among these food-collecting peoples from almost everything we know or can surmise about them from the archaeological record or from descriptions of later hunters and gatherers. While band size and population density may well have exceeded that of modern Bushmen in some of the more favourable environments, it is almost certain that social units were small and often geographically scattered. Under these conditions, inbreeding, random genetic fluctuations and differential selection would be very likely to promote inter-group dissimilarities at a higher rate than among larger populations of agriculturists. In Central Africa, where even less Later Stone Age skeletal data are available than in South Africa, it is especially important to resist the impulse to multiply races and hybridizations until there is a firmer basis for so doing.

Certainly the greater share of Central African human remains fall within the Bushmanoid range, as Wells was able to point out more than a decade ago. Since that time, the quantity of material has been doubled, and the situation is still much the same. Most of these finds relate to more robust forms than the South African Bushman, who may be a localized and relatively recent variety of a physical type which once occupied much of southern Africa. There are suggestions of Negro intrusions before the end of the Later Stone Age, but none of these is altogether convincing. It seems futile at this time to speculate upon the provenance and relationships of Pygmoid peoples in Central Africa in the absence of adequate data with which to approach the problem along direct lines of inquiry. One is tempted to accept Toerien's (1961) thesis that they are Bush-Negro hybrids, but it would be more fitting to have this demonstrated in Central Africa than to have it suggested by extrapolation from South African study cases. The contribution of the Pygmies, physical or cultural, to African prehistory is a matter for future research.

Notes

¹ The field research upon which this preliminary report is based was supported by a grant from the National Science Foundation, Washington, D.C. I wish to express my gratitude to Dr. and Mrs. J. D. Clark (who originally discovered the Lochinvar site) for their most generous hospitality and aid, to Mr. Brian Fagan who helped me in many ways and to the Directors of Lochinvar Estates, Ltd., for permission to excavate at Lochinvar.

² The term 'Negro' is employed here to designate all non-Bushmanoid inhabitants of South and Central Africa.

³ A more detailed morphological description is being prepared for publication.

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ROYAL ANTHROPOLOGICAL INSTITUTE

PROCEEDINGS

Navajo Sand Paintings. By Professor Kenneth E. Foster, Director, Museum of Navajo Ceremonial Art, Santa Fe, N.M.
 45 Summary of a communication to the Institute, 26 November, 1962

The origin of Navajo sand paintings is as obscure as that of the people themselves. It is presumed that they were influenced by various types of art practised by the long established Indians whom they met when they first arrived in the area now known as southwestern United States. In any case, the Navajos must have been artistic geniuses to produce a repertory of over 1,000 different pictures, many of which can be considered as true masterpieces of American art. They were, and still are, instinctively aware of the basic principles of design, colour harmonies and contrasts. Great skill is shown in obtaining balance and movement in the design.

However, they are not made for an æsthetic purpose, but for a more magical one, to obtain the presence and assistance of certain supernatural powers, during the performance of special rites. Made on the tamped floor of a specially built, octagonal log cabin, or 'Song House' (sometimes the family home is used), the holy pictures are actually altars upon which the Chanter ('Medicine Man') prays and performs the ritual connected with that particular ceremony, whereas the person for whom it is given sits near the centre, receiving the power from the picture, the prayers and the rites. The priest or shaman rubs or presses parts of the design and applies them to the body of the petitioner. By the end of the service, the power having been transferred to the body of the 'patient,' the remaining design is rubbed out, and the sand is gathered up and deposited outside the building.

The term 'sand painting,' although popularly used, is a misnomer, since no paint or brush is employed. In fact, in certain 'earth icons' or altars, sand is not used, even for the first ground cover, and the colours for the design are corn pollens, crushed flower petals, white and yellow cornmeal, etc. But the typical

floor picture today is made by strewing pulverized rocks and charcoal in carefully controlled designs, on a tan colour sand background. They are left in this loose, unfixed form to act as the altar, and then are removed at the end of the 'Sing' or ceremony, and deposited—as a sand pile—to the north of the building.

These symbolic altars illustrate the myths upon which each ceremony is based. Usually, a hero or heroine (sometimes accompanied by a brother or a sister), through many trials and tribulations, receives instruction and ritual equipment from a variety of creatures and supernatural beings. Ceremonies are performed by the 'gods' who display altars made of many-coloured clouds, or stitched cloth, and the earth person is commanded to memorize them, as well as the chants, prayers and all other ritual. He is then transported to his home, where often he teaches the ceremony to a younger brother. After this he is carried away to the sky. Because of specific healings listed in each myth, the ensuing ceremonies are given today for relief from similar or related injuries and misfortunes. They are also given for general blessings. The longest ceremonies today are the nine-night Chants, but they were much longer in earlier days. There are many short rites, which also employ 'sand paintings.'

The subject matter of the myths, and hence of the floor altars, includes the sun, moon, constellations; the rains, storms, lightning, thunder and hail; the holy mountains, lakes, rivers; the holy plants and other growing things; the 'gods'; the earth people, including the heroes and heroines; the animals, insects, serpents, birds; and inanimate objects which talk and behave as if they were living beings. In fact, anything and everything can be personified, and thus we have Wind People, Cloud People, Red Ant People, Coyote People, Snake People, etc.

The one place in the world where the wealth of material which makes up Navajo ceremonialism is completely preserved is the Museum of Navajo Ceremonial Art, in Santa Fe, New Mexico. This was because the greatest expert on Navajo religion, the late

Hasteen Klah (grandson of the famous Chief Narbona), sought means of recording the myths and rites of his people, and was finally successful when Miss Mary Cabot Wheelwright of Boston met him and agreed to undertake the task. When the research was completed, in 1937, she built and founded the House of Navajo Religion, where the thousands of manuscripts con-

cerning the myths and rites of the Navajo, as well as an equal number of research paintings of all the sand paintings and the actual ceremonial paraphernalia were to be kept. Three thousand Edison cylinders of the chants and prayers were also added to the archives. Two years later, this institution was incorporated under the title of the Museum of Navajo Ceremonial Art.

SHORTER NOTES

A Note on Wikmunkan Marriage. By Rodney Needham, B.Litt., M.A., D.Phil., Center for Advanced Study in the Behavioral Sciences, Stanford, California

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In a recent analysis I argued that Wikmunkan society is a two-section system of prescriptive alliance, marriage being with the bilateral cross-cousin, and not, as had been previously maintained, with the matrilineal cross-cousin.¹ In doing so, I touched incidentally on Dr. D. F. Thomson's reports that marriage is of a 'second-cousin type,' specifically with the father's mother's sister's daughter's daughter.² I have since discovered that in my search for references to the Wikmunkan I overlooked a further account published by Thomson,³ and this includes certain elaborations on the matter which ought to have been dealt with in the analysis and deserve separate comment here. There are three points to be examined.

(1) Thomson introduces his description with the general observation that 'the terminology in several tribes [of Cape York Peninsula] suggested a simple first-cousin marriage,' and he then writes specifically that among the Wikmunkan 'on the first examination the marriage rule of this tribe appeared to be a simple first-cross-cousin system.'

A collation of various reports on the relationship terminology shows that it is fundamentally that of a two-section system, with the complication that affines in the medial three genealogical levels are differentiated by relative age.⁴ In order to assess Thomson's latest account of the regulation of marriage, it is necessary to appreciate that the terminology takes no account of genealogical degree. A man has to marry a woman of his own genealogical level in the opposite terminological section (and, apparently, moiety), viz. a *moiya* (or *moi*, as Thomson renders the term in his account) who is a daughter of a *kala* (*kal'*). The term *moiya* denotes the bilateral cross-cousin, and comprises all marriageable women in the entire society. It therefore includes the father's sister's daughter and the mother's brother's daughter, but these are not designated by a special term indicating degree of cousinhood. The rule is qualified, however, by certain variable genealogical restrictions relating to these individuals. In the Archer River grouping marriage is forbidden with the father's sister's daughter, while in the Kendall-Holroyd grouping such a marriage is permitted so long as the woman is not simultaneously the mother's brother's daughter also.⁵ In this context, nevertheless, the terminology in itself indicates merely that marriage is prescribed with the bilateral cross-cousin, and not with a first cousin or with any other relative of a definite degree.

(2) Thomson repeats that marriage is of a second-cousin type, viz. with the father's mother's sister's daughter's daughter, and this is expanded with the further precise statement that 'the Wikmunkan tribe avoid the marriage of first cousins.'

But the burden of the ethnography contradicts this, and McConnel reports that there is actually a preference for marriage with the mother's brother's daughter. She also presents a genealogical diagram intended to show marriages with the mother's brother's daughter, and this does include one such marriage.⁶

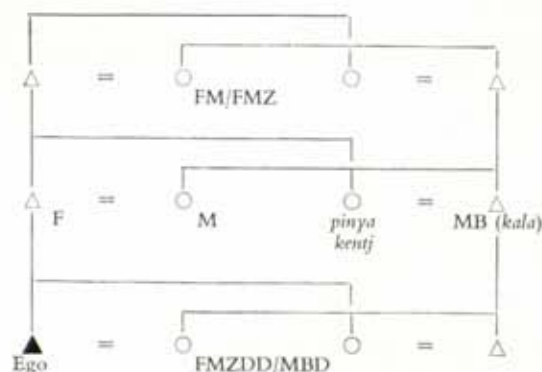
However, Thomson explicitly reports an institution for the avoidance of first-cousin marriage, and this demands attention.

The woman whom a man may marry, he writes, is determined by persons in the second ascending generation, who select 'one or more of the "sisters" of his father's mother (*ngatjawaiyo*)' whose daughters will henceforth be potential mothers-in-law to the man involved. These latter women are called *pinya kentj* (*pinya*, 'father's sister'; *kentj*, tabu), and the 'correct marriage' is for a man to marry the daughter of such a woman.⁷

Thomson describes the daughters of *pinya kentj* as 'actual second cousins,' but this is by no means a necessary conclusion from his own account of the procedure, and especially in the light of the rest of Wikmunkan ethnography. He himself places the word 'sisters' in quotation marks, evidently intending to indicate that they are classificatory relatives of the father's mother. This means that they may be of any degree of relationship at all, so that their granddaughters are not necessarily second cousins to the man.

Moreover, the category *ngatjawaiyo* (McConnel's *naiya*) comprises not only FM but also a number of other feminine genealogical specifications, such as MFZ, MMBW, etc.⁸ Thomson may well intend to convey that the woman whose 'sisters' are selected is indeed the mother of the man's father, but the ambiguity already noted in this description leads one to raise the question whether this is really the case. If not, the 'father's mother' could be any one of these other relatives, or in fact any woman of the second ascending generation married into his clan, and the granddaughter of such a woman's 'sister' could therefore be not FMZDD but MFZDD or MMBDD, etc.

In any case, even if we accept that the woman initially in question is the father's own mother, the conclusion still does not follow that marriage with a first cousin is precluded. Let us suppose that this woman's daughter, i.e. the *pinya kentj*, is married to Ego's mother's brother (*kala*). We know that this man may not marry his own father's sister's daughter, but the woman need not be related to him in this way, nor indeed as his mother's brother's daughter either. If this marriage is contracted, Ego will then marry a woman who is at once FMZDD and MBD, i.e. he marries a first cousin.



(3) Thomson asserts in his conclusion that the Wikmunkan have developed 'an ingenious method of avoiding marriage with own or actual cross-cousins, and so, with the daughters of women of own (father's) clan or of men of one's own mother's clan.' But even if we assume that FMZDD is not a first cousin this conclusion still does not follow. If FM and FMZ marry into the same clan, the daughter of the latter, i.e. the *pinya kentj*, will be of Ego's clan, and he will therefore marry the daughter of a woman of his own clan. That this may well be the case in fact is confirmed by reports elsewhere in the ethnography that sisters often marry into the same clan, and that it is customary to 'go on intermarrying' with the same clan.⁹ If, on the other hand, the *pinya kentj* is married into the clan of Ego's mother, whether or not she is actually married to his mother's brother, then in marrying her daughter he will be marrying the daughter of a man of his mother's own clan.

As far as relations between clans are concerned, therefore, the procedure which Thomson describes would not secure the results that he alleges. As a matter of fact, it appears to effect an opposite result, i.e. it works to maintain alliances between local descent groups.¹⁰ This interpretation holds, moreover, whether or not the 'sisters' of the father's mother are married into the father's clan, and whether or not the women designated as *pinya kentj* are also married into one clan, and even if it happens that none of them is married into the clan of Ego's mother. In other words, the result is achieved regardless of the genealogical definition of the categories of women involved, whether they marry into the same clans or into different clans, and whatever the degree of relationship of the men to whom they are married.

The conclusion of the present note is thus that the 'ingenious' institution reported by Thomson brings about none of the supposed results examined above, but that it may be understood in relation to the system of prescriptive alliance by direct exchange by which, as I have analysed it, Wikmunkan society is constituted. If my arguments are correct, this note supports the analysis in its central points and particularly in its methodological theme. That is, I infer that Thomson reaches his interpretation of the institution by viewing it in terms of genealogical connexions between individuals, whereas a more satisfactory understanding depends on viewing it in terms of categories governing alliances between local descent groups.

Notes

¹ 'Genealogy and Category in Wikmunkan society,' *Ethnology*, Vol. I, No. 2 (1962), pp. 223-64. I take this opportunity to acknowledge two misprints on p. 244 of this article which I overlooked in proof: line 7 from bottom—for 'or relatives' read 'of relatives'; line 6 from bottom—for 'formerly' read 'formally.' The following corrections, due to presswork, or to other factors in the editorial offices, also require to be made: p. 227, Table 1—'Holroyd R.' to be level with '19' (cf. note to the table); p. 232—delete line 2 (which belongs in the preceding article in the same issue); p. 258, lines 3 and 2 from bottom—for 'alliances,' read 'alliance'; for 'principles' read 'principle.' On p. 251, the compression of part of the argument into smaller type results from an editorial decision and does not mean that it is intended to be read as being of minor importance.

² *Ibid.*, p. 231.

³ D. F. Thomson, 'Two Devices for the Avoidance of First-Cousin Marriage among the Australian Aborigines,' *MAN*, 1955, 44. The Wikmunkan are dealt with on p. 40, and no further references are necessary.

Without at all disclaiming responsibility for my own oversight (cf. Needham, p. 225), I should like to mention that this is one more demonstration of the urgent desirability of a thoroughly comprehensive bibliography on Australian societies. Tindale's is useful, but not nearly as detailed as, e.g. Kennedy's on Indonesia or Murdock's

on North America. (A cumulative index to *MAN* is also long overdue.) [The Hon. Editor of *MAN* feelingly concurs.—Ed.]

⁴ Needham, p. 244.

⁵ *Ibid.*, pp. 230f.

⁶ See Needham, pp. 231, 247f.

⁷ Later in his account there is what appears to be an expository slip, in that Thomson defines such marriageable women as 'mother's father's sister's daughter's daughters' instead of 'father's mother's . . .'. Now MFZ is known by the same term (*naitya*) as is FMZ, and her daughter is equally a *pinya*, so that as far as determination of category is concerned these variant specifications are inconsequential, but since it is genealogical connexion that is said to be decisive one would like to be more certain that the former is correct.

⁸ Needham, p. 229.

⁹ See Needham, p. 231.

¹⁰ Cf. *ibid.*, p. 248.

A Note on Ordeal Poison in East Central Africa. By M. G.

Marwick

47

In East Central Africa,¹ the tree whose bark provides ordeal poison is usually identified as *Erythrophloeum guineense* or *E. africanum*. Africans refer to it as *mvabvi*, *mvafe*, *mvafi*, etc., though this term means ordeal in general rather than the specific tree or substance used in the poison ordeal—as is shown by the use of phrases such as *mvabvi yamadzi* and *mvabvi yamoto* (Chewa: 'ordeal by [boiling] water' and 'ordeal by fire' respectively).

Among the Chewa (Ceŵa) of Northern Rhodesia, the poison ordeal was the traditional method of detecting sorcerers and witches. Ordeal poison was administered to whole village populations at a time, either as a routine measure of social hygiene or when a series of deaths or the death of an important person had led to the impression that sorcerers and witches were active. It was also resorted to as a result of individual accusations of sorcery; and, if the accused person vomited, and thus proved his innocence, the accuser might himself be subjected to it. Gamitto, who passed through the country in 1831-32,² gives a richly detailed description of such an ordeal followed by an execution of the person adjudged guilty.

According to the *Nyasaland Handbook*, poison ordeals still occur 'over the border in Portuguese territory.'³ According to an official of the Portuguese Administration whom I met in 1947, 'Mvabvi-drinking no longer occurs in Moçambique, but across the border in British territory.' The true position is that, though *mvabvi*-drinking at large-scale ceremonies has been successfully suppressed, it still occurs—in great secrecy—as a family (i.e. matrilineage) affair, especially when an accusation of sorcery or witchcraft is countered by a challenge that all possible suspects, including very often the accuser, should submit to the ordeal.

The Northern Rhodesian Chewa affirm that there are two types of *mvabvi* tree. The one found in Nyasaland, probably *Erythrophloeum guineense*, is known to them as *chinkhundu* and is said to be so strong that the infusion made from its bark causes people guilty of sorcery or witchcraft to die outright from its effects. Gamitto's account gives the impression that the subject's fainting may have been mistaken for death and that, since the convicted person was immediately executed, usually by burning, there were no observed instances of recovery from its effects to contradict this belief. The second type of *mvabvi*, found in Northern Rhodesia, is said to be weaker. Chewa say that, if a sorcerer drinks an infusion prepared from it, he does not die but he purges; and that this is taken as proof of his guilt.

When in Northern Rhodesia in 1953, I collected specimens from a shrub designated as the local kind of *mvabvi*, and the Northern Rhodesian Forestry Department tentatively identified it as *Crossopteryx febrifuga*.⁴ Two subsequent examinations, kindly

arranged on my behalf by Mr. D. R. M. Stuart of the Northern Rhodesian Department of Game and Tse-tse Control, have confirmed this identification.

Notes

¹ This note is based on research undertaken during field work sponsored by the Colonial Social Science Research Council, London, to whom I make grateful acknowledgment.

² A. C. P. Gamitto, *O Muata Cazembe*, Lisbon (Imprensa Nacional), 1854, pp. 128-32.

³ S. S. Murray, *A Handbook of Nyasaland*, London (Crown Agents for the Colonies), 1932, p. 90.

⁴ Letter dated 29 September, 1954, from the Conservator of Forests, Ndola, for whose co-operation and that of the Provincial Forestry Officer at Fort Jameson I am grateful.

CORRESPONDENCE

Zande Texts. Cf. MAN, 1962, 235

48

SIR,—Professor E. E. Evans-Pritchard, in his note on 'Three Zande Texts,' raises issues of wide interest in connexion with Zande folklore. These particularly refer to the possibility of 'recent introduction from Europe.'

It is therefore all the more surprising that Professor Evans-Pritchard nowhere indicates, in his introductory remarks, the main text or the notes, when these three texts were collected. Were they collected as part of his original pioneer field work among the Zande back in 1926, or on some much more recent visit? Quite apart from the specific relevance in this case, it is an axiom in collecting folk texts that they should be accompanied by full particulars not only of the date, but of the place and source of the informant. It may, for instance, be extremely relevant to know the social status of the latter, and in particular what contact he has had with European missionaries and others up to that time.

It is also misleading to refer, in this context, to such material as 'texts.' Surely these were spoken stories which have been transcribed. Here again, it would be relevant to know if they have been transcribed by hand or on tape. There is additional uncertainty in his note 1, which leaves it far from clear whether he gives the whole of the first Zande text from a recorded document or tape, or whether it is 'from memory.' I do not wish to quibble, but I should have thought that by 1962 it was axiomatic that agreed scientific methods should be applied in field work of this type. We look to people like the Professor of Social Anthropology at Oxford to raise the standards, not to ignore them.

TOM HARRISSON

Sarawak Museum, Kuching *Curator and Government Ethnologist*

Note

The above letter has been shown to Professor Evans-Pritchard who replies as follows: 'Mr Harrison complains that I did not give

such information about some Zande texts as he considers was required. I will not dispute his complaint. I would like, however, to say that I have time and again stated in many publications on the Zande when and where I conducted my research and that had I conducted further research among that people I would have said so. I have also given an account of the circumstances in which my texts were taken down in introductions to other texts, some of which have already appeared in *Sudan Notes and Records*. Others are about to appear in *Kush*, in a small privately printed edition, and elsewhere. Yet others would have been printed in *Zaire* had not publication of that journal been suspended. Of course I cannot hold it against Mr. Harrison that he has not seen these collections of texts, especially as some are still in the press.

I do not agree that "spoken stories which have been transcribed" should not be described as "texts." Once they have been written they become texts in my view of the matter. Many of what historians call texts are spoken stories recorded in writing. My texts were recorded by hand. I believe that there was no tape in those days. Note 1 refers to the English version. I trust that Mr. Harrison now has the information that he desires.'—ED.

On Nannas and Nannies. Cf. MAN, 1962, 288

49

SIR,—The last paragraph of Jack Goody's unusual article prompts me to send you a story which I found to be popular in Moscow just now.

A child is reading a pre-revolutionary story and asks his mother 'What were domestics?' The mother replies that they used to keep the house clean, do the cooking, look after the children. 'Oh, I see,' the child says returning to the book, 'Now the name is changed to grandmothers.'

Stratford-on-Avon

JACQUETTA PRIESTLEY

REVIEWS

GENERAL

Le totemisme aujourd'hui. By Claude Lévi-Strauss. Paris (P.U.F.), 1962. Pp. 154. Price N.F. 6. **La pensée sauvage.** By Claude Lévi-Strauss. Paris (Plon), 1962. Pp. 389, many illus. Price N.F. 19.75

50

Though each of these books may profitably be studied by itself the first is really a preface to the second. They will here be discussed together. It is now generally recognized that Lévi-Strauss is one of the few really important anthropological writers of the present day. Recognition has been slower among British social anthropologists than elsewhere. Whereas the *American Anthropologist* immediately rated *Les structures élémentaires de la parenté* as 'undoubtedly the most important book in anthropology in this generation,' MAN took two years to admit rather grudgingly that it was 'the most important contribution made by a French anthropologist since the war' (review by Dr. A. I. Richards, MAN, 1952, 13). But times are changing. When, in 1952, Lévi-Strauss delivered lectures in London, Oxford and Cambridge on the 'structural study of myth' his audiences were uniformly baffled and uncomprehending; ten years later his Henry Myers Lecture, which was a version of Chapter IV of *La pensée sauvage* and intrinsically far more difficult than the

earlier myth lectures, was received with tumultuous enthusiasm by an audience in full communication with the lecturer. Lévi-Strauss is not the only influence currently affecting British social anthropology but he is certainly a dominant one; every serious social anthropologist must read and re-read these books.

In a recent brilliant essay (E. Gellner, 'Concepts and Society,' *Trans. Fifth World Congress of Sociology*, Washington, D.C., 2-8 September, 1962, Vol. I, pp. 153-83) Professor Gellner has made the remark that 'Durkheim's main problem . . . was not to explain religion but to explain conceptual thought and above all the necessity, the compulsive nature of certain of our categorical concepts.' This 'Kantian problem' is also the starting point of Lévi-Strauss' investigations as exemplified in these two volumes but, just as I would defy anyone to provide a satisfactory commentary on *Les formes élémentaires de la vie religieuse* in the compass of a MAN review, so also any brief 'criticism' of Lévi-Strauss could only be both presumptuous and misleading; I shall merely try to indicate what the two volumes are about.

On the theme of totemism, Goldenweiser's critique of Frazer appeared in 1910, Freud's *Totem and Taboo* around 1913, Durk-

heim's *magnum opus* in 1912. These works Lévi-Strauss takes for granted; *Le totémisme aujourd'hui* is concerned with post-1918 thinking on this classic theme. Elkin, Firth, Radcliffe-Brown are the writers who receive closest attention. The argument runs that in the inter-war period the dominant Malinowskian brand of functionalism contaminated anthropological theories of totemism. Functions were equivalent to the satisfaction of biological needs; the purpose of totemism was to increase the totemic species, to provide food for the totemites. Totems are ritually valuable because they are already socially (*i.e.* economically) valuable—thus Radcliffe-Brown in 1929. Lévi-Strauss notes with admiration that already in 1931 Firth interprets Tikopia totemism as a logically ordered system of categories, as well as an allocation of magical power over foodstuffs and the pests which attack them; but he also claims, on the evidence of the Huxley Lecture for 1951, that towards the end of his life Radcliffe-Brown had made a radical shift in his views, that he had become interested in totemism as a system of logical categories rather than as a system for providing functional satisfactions: 'on comprend enfin que les espèces naturelles ne sont pas choisies parce que "bonnes à manger" mais parce que "bonnes à penser".' The book ends with a discussion of the relation of this aspect of Radcliffe-Brown's thought to ideas which appear not only in Durkheim but also in Rousseau.

In comment one might remark that Radcliffe-Brown's thought did not really develop in quite this clear-cut way; mathematical and biological notions of structure were both present from early days and never adequately distinguished.

La pensée sauvage provides the general theory for which the essay on totemism provides the special case. A tightly packed tremendous book of which no *précis* is possible. I shall do better if I summarize the argument in my own terms rather than attempt to follow the intricate maze of Lévi-Strauss's own exposition. The background argument runs something like this. Our modern mastery of the world depends upon mathematics, that is upon our ability to manipulate symbolic logic in a completely abstract form. We incline to take such abstract thinking for granted, yet it is the most stupendous and improbable of human achievements. What are the ultimate roots of mathematical transformations, of logical thinking, of the formation of categories, of thought itself? On the one hand man, through his system of concepts and categories, imposes order on the world he inhabits; yet on the other hand the categories themselves are of necessity drawn out of experience, they derive from the natural world. The perception that the world is populated by 'species' of things is primitive; thought of any kind entails the

manipulation of 'species' categories. It is no accident that the animals of palaeolithic cave paintings should be as sharply distinguishable as if they were in the pages of a zoological handbook. At another level the organization of society depends upon the organization and manipulation of categories of human relationship. But on what should this categorization of relationships be based? Relationship is an abstract notion; an animal is concrete. It is not really surprising that categories of the one kind should be closely derivative from categories of the other—and *vice versa*. Some of this is implicit in the writings of Radcliffe-Brown. But Lévi-Strauss goes much further and asks us to consider the quite general problem of the way in which things are named and classified, for it is in the relationships which exist between the individual members of sets of names that the structure of logic and mathematics first begins to emerge. Some of it is tough going even for the enthusiast; but very well worth while.

This hurried pastiche gives no indication of the subtlety of Lévi-Strauss's thought, nor of the brilliance of his exemplifications, nor of the astounding range of his learning. No ethnographical essay escapes his eye, but he chooses his cases where he will; the naming customs of dog-fanciers and horticulturalists are as much grist to his mill as the time concepts of Australian aborigines. No outline is possible; I can only say that reading this book is a most exciting intellectual exercise in which dialectic, wit and imagination combine to stimulate and provoke at every page.

Both books demand urgent translation into English, though I should add that translation will present most formidable difficulties. For example, a considerable section of *La pensée sauvage*, starting at p. 26, depends upon the semantic associations in French of the word *bricolage*, for which I can think of no English equivalent—even approximate. Or to start even earlier—there is the baffling fact that this study of primitive thought bears on its dust cover an illustration of wild violets ('*pensée sauvage*'). The pun is discussed in an appendix at pp. 358–60, but heaven help the poor translator! Even so I hope that someone will try.

The MAN review of *Les structures élémentaires de la parenté* included the comment that 'this is in some ways a transitional book which is bound to lead the author into clarifying new positions.' Certainly that was right, and here we are at the new positions; but the result is a still more transitional book. This is only the beginning of a new phase in social anthropology, and it is certainly to be hoped that British anthropologists will bestir themselves to make their contribution.

EDMUND LEACH

ASIA

Peasant Marketing in Java. By Alice G. Dewey. Glencoe (Free Press), 1962. Pp. xxi, 238, endpaper maps. Price \$6

51 Following Clifford Geertz's *The Religion of Java* and Hildred Geertz's *The Javanese Family*, this is the third book to give results of the study of a town in east central Java by a team of Harvard anthropologists.

After a brief comparison with the peasant economy of Malaya, West Africa and Guatemala, and a general introduction on Javanese social organization, it introduces the reader to the functioning of the market in the town of 'Modjokuto': the hours of business and the market week; the carriers, customers and traders, and their interaction; the financing of marketing activities; and the main types of trade.

The theme is original: whereas practically all previous micro-economic studies on Java approached the subject from the situation of the producer, Dewey's book is the first to concentrate on the market. By doing so, it very usefully fills some of the gaps in our knowledge of peasant economy, in Java and elsewhere. Several details, in fact, never seem to have been described before: traders' groups (p. 88), granting of credit by the farmers to the traders (p. 107), price-formation in intermarket trade (p. 127).

For all that, there remains something unsatisfactory in the present study: the marketing process is described almost as an isolate. What

the earlier 'producer-centred' studies did bring out, but this book does not, is the relationship of the economy of the market to the peasant economy as a whole. The stress is on the selling, to the almost total neglect of the customers' buying. The influence of marketing on the domestic budgets and on the diet remain obscure, its connexion with the agricultural seasons is very summarily dealt with, and the agricultural factors that make this kind of marketing possible and necessary are not mentioned.

One cause of these shortcomings lies, I think, in isolation of a different nature: the study is presented as totally unconnected with previous economic studies carried out in Java. If the author had cared to consider earlier research, it might have been a pointer for her own—if only so that she could have systematically improved on what was scrappy in her predecessors' work. It would have introduced the time dimension, which simply forces itself on one in the rapidly changing and yet so stable society of the Javanese; and it would have made the book more of a contribution to the body of knowledge and understanding of Javanese culture that has been patiently built up through the years.

The Appendixes give *inter alia* a sample of traders' purchases and sales (very useful), a list of kinship terms (the purpose of which is less obvious), and a discussion of Boeke's theories. The defects in Boeke's views on western economic theory have been dealt with

before and since, but the present book is not itself a refutation of the 'dualistic' theory. 'The local traditional and moral world and the wider and more impersonal world of the market are in principle distinct, opposed to each other... In peasant societies, the two are maintained in some balance; the market is held at arm's length, so to speak.' This was written not by Boeke but by Redfield.

P. E. de JOSSELIN de JONG

Social Economy of a Polyandrous People. By R. N. Saksena. 2nd edn., revised. London (Asia Publ. House), 1962. Pp. xiv, 143, 21 plates. Price 2 guineas

52

A former Governor of Uttar Pradesh, Shri K. M. Munshi, has written a rather long, hazy, although in some respects learned foreword to this revised edition of the book first published in 1954 by the Professor of Sociology and Director of the Institute of Social Sciences at Agra University in India. The title is puzzling, for what else but 'social' can the economy of any people actually be?

As it is, the contents of the work, dealing with the notoriously polyandrous people of Jaunsar-Bawar in the Dehra Dun district of Uttar Pradesh, has little to do with either economy or polyandry. Instead we are treated to a description of the agricultural and rural industrial pursuits of a *pahari* community of the Himalayas, against a sketchy and superficial background of their social organization and their religion.

The author does well to give us a thorough account of the environment (or the habitat as he calls it) in which these mountaineers live. His narrative of their past, although as is usual in India more closely related to mythology than to history, is also of interest. And he makes sensible remarks such as that it is important when reforming their backward ways not to do so abruptly, since it would dislocate their social structure; or that the sterility of many of the women is due more to venereal diseases than to the practice of polyandry.

Expectation is thus all the more frustrated when sweeping reasons are then given for the polyandrous customs of the people; when we are told that there is 'a complete absence of male jealousy in the practice of fraternal polyandry'; and that the type of marriage by which a woman has more than one *leharwad* (husband) limits emigration from the valley. These are imprudent, shallow pronouncements, unconvincing and even downright erroneous to anyone who has a personal, practical experience of polyandrous communities.

The illustrations are, on the other hand, very good and they give an excellent idea of the people and of the country in which they reside.

It must be said too, that some of the statements in the text are very ambiguous, e.g., on p. 24, that polyandry was an institution not unknown to the early Aryan settlers in India from Central Asia which explains that of the Jaunsaris who live in particularly hard economic circumstances which have led to the adoption of polyandry; or on p. 29, that polygyny is increasingly practised, but that since the sex ratio is greatly disturbed in favour of the males in this region this creates a further artificial (*sic*) sex disparity; or, again, on p. 73, that one-third of the families are forced to borrow money for various non-economic purposes such as marriage and consumption (?).

Indian-English sentences occasionally quicken the reader's attention, as on p. 58: '... the weeds are removed by the hands'; on p. 72: 'The following table will give a clear picture of his [the Kolta's] self-borrowing indebtedness amongst the Kolta families.'

I am not aware of any polyandry prevalent in the Kangra valley or in the Hindu-Kush, as the author says on p. 22. I would also look

with the greatest reserve on his would-be historical account of the polyandry of the peoples of Central Asia, p. 24.

In Appendix I, Mr. A. Ross's *Dastur-ul-Anal* of 1851 for Jaunsar-Bawar is given in full, with the interesting provisions for polyandry in article 12. Except for Appendixes II and III (which respectively give the rainfall from 1940 to 1950 and a census of the population in 1951), the following five appendixes are really only agricultural tables of interest to the compilers of Revenue Charts. A glossary and an index follow, but inconveniently there is no map.

PETER, Prince of Greece and Denmark

A Season in Sarawak. By Mora Dickson. London (Dobson), 1962. Pp. 216, illus., endpaper map. Price £1 10s.

53

Mrs. Dickson visited Sarawak in 1957. She went first to Padawan and Budu, and was then taken up the Baram river as far as Lio Matu. She makes no claim to professional ethnographical ability, but her account of her travels gives a modest, exact and lively impression of the country and especially of modern cultural and educational changes.

Her observations are indeed superficial, but are nonetheless genuine and sometimes revealing about those myriad details which compose one's personal picture of a foreign country—the cakes at a Chinese tea, the demeanour of English-educated local school-teachers, the contrasts between Chinese, Malays and the indigenous peoples, the casual assumption of equality by a Kenyah headman. (Her one concession to popular prejudice is to refer to the Baram, in a chapter heading, as 'the river of no return'; but even this is significant, since it is the Sunday-newspaper description which a Chinese civil servant thought appropriate to characterize his tedious isolation from coastal civilization.) Well deserved credit is paid to district officers, voluntary welfare workers and the Borneo Evangelical Mission, whose labours and varying examples are more influential today than the traditional concerns with head-hunting, mortuary ceremonies, and death names which naturally preoccupy the anthropologist. There is little information of precise ethnographical value, but the touching openness and trust of the Eastern Penan is well caught: 'we... felt abashed, aware in our hearts that such open innocence was not safe in the world from which we came and ashamed of that awareness.'

Humane perceptions such as these may not contribute to the advancement of science, but they are true and important, and it is well that Mrs. Dickson should have recorded them.

RODNEY NEEDHAM

Juvenile Delinquency in an Indian Setting. By Hansa Sheth. Bombay (Popular Book Depot), 1961. Pp. xxv, 295. Price Rs. 15

54

This is a very competent study of juvenile delinquency in Bombay by a lady who has studied the literature and has worked as an Honorary Probation Officer. In a large city like Bombay, in which 72 per cent. of the inhabitants are immigrants; where in the age group 15-44 the proportion of men to women is two to one, and where two-thirds of the population live in one-roomed tenements with an average of over five persons to a room, the problems of delinquency are, not surprisingly, acute. Many girls come before the Juvenile Courts as 'offenders against sex norms,' and since prohibition many small boys have been employed as liquor-smugglers, but apart from that the pattern of delinquency differs little from that in Britain and the U.S.A. To her general account the author appends a number of case studies investigated by herself.

RAGLAN

OCEANIA

The Pacific Islands. By Douglas L. Oliver. Revised edn. New York (Doubleday), 1961. Pp. xvi, 456, 32 decorations and maps. Price \$1.45

55

This useful companion to Pacific studies was first issued in 1951 and was reviewed in MAN (1952, 91). It provides a brief survey of the ethnic history, composition and culture of the Oceanic peoples, including the Australian aborigines, and a rather fuller account of the period of European contact, analysing the

impact of the different groups and interests: explorers, whalers, traders, missionaries, planters, administrators and large-scale commerce and industry. This revised edition has been brought up to date where necessary, especially in the light of recent advances in archaeological and linguistic studies which have caused previously accepted views on the origins of the Polynesians and the chronology of their dispersal to be modified.

B. A. L. CRANSTONE

GIRLS' COURTING HUTS IN WESTERN MANDARI*

JEAN BUXTON

London

56 The girls' courting huts described here¹ are important centres for social circulation and entertainment among the young people of Mandari. They promote the meetings of youths and girls, break down the shyness and reserve of adolescence and are the channels through which those who meet casually—at dances or on visits—can get to know each other better.

The courting hut is called *lomore*, or simply 'the girls' hut,' '*kade na kōditi*,' and there is usually one or more for a lineage or large extended family. Chiefly lines may have several courting huts, whereas the daughters of small families and those of retainers use the huts of neighbours or patrons. A mother will readily make her own hut available if occasion demands, and sleep under its raised veranda so that her daughters can entertain visitors there. When there is a village dance, youths who have come to it from round about stay to sleep in the girls' huts, and all the older women automatically double up to leave additional sleeping space and relieve the pressure on *lomore*.

In the rains, when people are in villages, there may be about ten girls to a hut, but this number will dwindle to three or four as the dry season advances and young people leave for cattle camps. A specific *lomore* used only by girls, as opposed to the hut of a wife and young children which may occasionally be taken over, is built near the homestead of the parents of a group of sisters. Most of its regular occupants are related, being sisters or cousins, but female retainers and girls visiting friends or kin use it as well. Hut occupants make the simple furnishings—mats, pots and gourds—and keep the hut swept and tidy, but it is not usually a home in the sense that a mother's hut with its fields is. Doorways of *lomore* are decorated round the edges with a band of white clay to publicize them (fig. 1).

Children up to the age of about six sleep in the mother's hut where her husband is a more or less permanent occupant. After that it is usual for them to disperse to other sleeping places, only using the homestead during the daytime and for eating in. Boys go off to cattle camps, or sleep in the small village goat kraals. Later, when they are older, they do the rounds of unrelated girls' huts. Girls go to the family or lineage *lomore*, and if there is not one ready to accommodate them and used by older sisters and cousins, a father and her brothers will build one.

A hut is always under the supervision of an older girl who is answerable to parents or brothers. But parents as a whole do not interfere in the flirtations of their daughters, and it is only if a girl wishes to marry a youth who is considered unsuitable—because he has insufficient cattle or comes from a 'bad' background, one with the stigma of

* With a text figure

theft or believed evil-eye or witchcraft activities—that there may be parental opposition. Flirtations are recognized as the passing enthusiasms and growing pains of youth and are not taken too seriously. On the contrary they are part of the 'education' of girls and boys.

During the day, hut inmates help their own mothers in the main homesteads and cultivations, returning to the *lomore* after the evening meal. Older girls, if they wish, cook and eat there with girl friends. A motherless girl can make it her permanent base and her brother will help her to cultivate the surrounding fields.



FIG. 1. GIRLS' COURTING HUT, MANDARI

When young girls first begin to sleep in the hut they do not mix with the men who visit the older girls. They keep to themselves, learning how to behave and make intelligent conversation—they are afraid of appearing ridiculous and being laughed at. And in Mandari loss of face brings 'shame,' '*yu na kwe*,' and is to be avoided at all costs. The hut serves the dual purpose of providing accommodation for girls who move away from their homes to give privacy to their parents, as well as a place for courtship. Many girls, however, still sleep in the mother's hut a good deal of the time, particularly if she has a young baby and her husband is sleeping elsewhere.²

The young men and youths who visit *lomore* have passed through initiation ceremonies, and entered 'bead sets' (an arrangement whereby a group of youths initiated together wear waistbands of beads of a certain colour which they change periodically). Before Mandari took over initiation from the neighbouring Atout tribe, boys went to girls'

huts at puberty, when they were given a spear and a bow and arrows by their fathers. When boys begin to use *lomore* they associate with girls of their own age or younger—like the little girls they fear the ridicule of other hut members and visitors. Young men and those looking around for second and third wives, and older men needing sleeping accommodation when visiting, are entertained by the more mature girls.

Flirtation and recreation is the *raison d'être* for visiting a girls' hut, and young men walk long distances to court girls whom they fancy. Journeying in search of girls is partly enforced by the fact that the main Mandari clans are localized and girls who are neighbours are in the main also relatives and cannot be courted. (There are always, however, a sprinkling of unrelated, courtable, girls in a village.) Girls' huts provide youths with an *entrée* to the company of girls in different villages, and a youth may 'do the rounds' of huts all over the country for years before finally deciding on serious courtship, or acquiring sufficient cattle to marry. Initially he may have been attracted to a particular hut simply because he has heard its owners are beautiful—and some *lomore* are much more popular and renowned than others. Or a youth may have seen a girl who took his fancy during a visit to her village or at a dance, and then pursues the relationship further by visits to her hut. Before he follows up a chance meeting he makes careful enquiries to ensure that there is no kinship—clanship, or close mother's brother links, or certain in-law relationships between them which would make flirtation or marriage incestuous.

When darkness falls and the evening meal is over, woodland paths are busy with the coming and going of parties of youths or single suitors all elaborately adorned and armed, 'walking out to flirt,' '*wörö lemō*,' or 'walking to girls,' '*wörö köditi*,' as Mandari put it. On arrival at a *lomore* a youth proceeds according to etiquette. He approaches the hut and waits in the path where it enters the cleared yard. However ill at ease he may feel he tries to assume an assured and unconcerned manner by leaning on his spear, or nonchalantly lighting a pipe. The girls continue chatting among themselves, pretending not to notice his presence although perfectly aware of it. Then an older girl sends a child out to question him. She asks his name, that of his family and country (if this is a first visit) and most important, which member of the *lomore* he is calling on. A visitor should always ask for a girl by name, and even on a first visit a youth will try to ascertain a girl's name which will give him *entrée*. The child then reports back. If the girl who is asked for knows and likes him (or is pleased by what she can see of his appearance in the moonlight), the child brings him into the yard and spreads a mat. If the man is refused he leaves. He never goes into the *lomore* to seek out another girl. Should he have travelled a long distance and be without relatives nearby, he may be directed to a goat kraal, or be allowed to sleep under the hut, because it is dangerous to cross unoccupied bush infested with wild animals alone at night. If accepted, the youth spends the evening talking and joking with his girl and her sisters.

Around midnight people tire and leave the yard and veranda to sleep in the hut itself. The sleeping position for the girl is to lie with her head on the man's shoulder. There may be affectionate petting—stroking and caressing—but sexual intercourse should not take place. The girl sleeps in her loin cloth, although in some places it is becoming the fashion (rather disapproved of by the older generation) for girls to sleep naked when Dinka suitors are expected, in order to 'please' them, and because unmarried Dinka girls are also naked.

Suitors visit a courting hut whenever they like. Some nights one or two may come, on other occasions there may be more men than girls. Then for a period no one comes. When the hut is full, people lie alternately, girl, man, girl, man; or one man may have a girl on each shoulder. A girl can also entertain two men, one of them sleeping while the other talks to her. Then the men change round. A suitor should visit for two consecutive nights, after which he does not come for a while. To fail to return after the first night, except in the case of a casual traveller, is rude, because it suggests that the girl was unattractive. When visitors live nearby they return home during the intervening day to work. If they have come a long way they can spend the day and eat with relatives within walking distance. If they have no relatives nearby they must occupy the day as best they can while the girls are working, and they may go hungry because they cannot eat or drink with the girls or their kin. Men brag about these discomforts, and say how easily they can bear the two-day fasts and the long walks. They like to suggest that such weaknesses as hunger and thirst do not bother them. They would even be 'ashamed' to be seen slipping off to eat with nearby relatives because this would suggest that they were greedy or weaklings.

If two men arrive for the same girl and both have a rival interest in her they may fight. The handling of the situation is up to the girl, and she will refuse the second arrival if she expects quarrelling. In fact, it becomes known if a girl has a particular favourite, or a man is visiting her regularly, and other men stay away while the relationship lasts. An ability to handle a delicate situation is part of a girl's training. If she deliberately encourages a man and then begins to receive others she may find herself in a difficult position. However, a man does not acquire any exclusive right to a girl merely by visiting her, and the girl always has the power of refusal. The man must then leave with as good a grace as he can muster. Primarily the *lomore* fills a social rather than an exclusively personal need, although personal feelings naturally enter in and may be overriding in any one situation. After a man has come with his age mates to ask a girl's father for her hand in marriage he will become more alive to his rights, and may act aggressively towards any man who tries to visit her. While a couple are carrying on a flirtation they exchange small presents—pipes, beads or bracelets—and make use of each other's possessions.

After a man marries, visits to girls' huts do not necessarily end, although they may for a time. If a man can afford to do so he will marry for a second time when his

wife is over-burdened with the children and work of the homestead. She cannot object, and will even encourage his visits to girls' huts provided her own interests are not neglected and the visits are not made too often when it is apparent to everyone that the husband cannot remarry for a long time. Men who have disagreeable or neglectful wives may try to seek out an old sweetheart and visit her *lomore*. Such a relationship, however, can arouse antagonism from the girl's relatives. They know that marriage is unlikely and that the man is merely making use of his former sweetheart for his own diversion. But every time a man marries he utilizes the system of girls' huts, even if he is middle-aged. Only in the case of older chiefs and prominent elders are *lomore* visits sometimes bypassed, and a more direct arrangement made with the girl's father. Younger chiefs go round courting huts accompanied by retainers and age mates like other people, but when they are expected or arrive, other youths may be refused on that night. This is done out of respect for the eminent guests, and the excuse given would be that the hut was needed for visitors, or that 'our father,' a pseudonym for 'chief,' is here.

A girl without a suitor sleeps alone in her place. If she has her period she may turn away a visitor (but menstruation in itself does not debar a girl from receiving one); she can also refuse if she is tired or bored. Youths do not visit all the time as there is work to be done and people must sleep; but there is a lot of daytime yawning on the part of sociable young men who have been doing the rounds.

Entrée to a *lomore* is never refused simply because of poverty or low status, and many poor men have wit and charm and are popular; but their social position will affect the kind of marriages that they can make and so they may be discouraged by the eligible daughters of rich or prominent men. Apart from disinclination, a girl will refuse a known thief, or a person suspected of having the evil eye. This kind of reputation forces a man to consort with girls from similar backgrounds or poor client families. A man is not debarred from a hut where kinswomen are sleeping if an unrelated girl in whom he is interested is using it, but he confines his attentions to her, and is reserved with his relatives.

Behaviour in a *lomore* is always ultimately restricted by conventions, because the hut is the channel for marriage which is regulated by strict social codes and very real economic and status interests. Sexual demonstrations are inhibited by the public nature of the place, and by the presence of sisters and cousins who may report to parents. An affair will be exposed because loose morals in a girl are thought to endanger her male relatives who can fall sick or meet with accidents as a result of it. The health and marriage chances of a brother are closely tied up with his sister and the way she behaves. A lost reputation may mean ruined marriage cattle, or illness, and this is never forgotten.

The *lomore* is traditionally the place for courtship, and the homestead of a husband and wife the place for sex. So if two young unmarried people are determined to have sexual relations they do not go to the *lomore*, but slip away to the cultivations, or try to find an empty or derelict hut. Sleeping with a lover in the open though practised is disapproved of—'it is like dogs.' As in all societies there is a minority element in Mandari who are 'loose' or 'fast,' *lero*. A girl may become like this because she was seduced by a man whom she hoped to marry and was then deserted. Other girls drift into affairs because for some reason they have not married young, or because they simply like men and are sufficiently independent-minded to risk spoilt marriage cattle and the anger of their relatives. Men say that it is wrong to seduce a girl—'you should just talk with her and then let her sleep on your shoulder'; particularly censured is the man without serious intention and with no cattle, who cannot make good any wrongs he may do. These are recognized Don Juans who 'deceive with stories of non-existent marriage cows.' Girls may band together to punish such a man who has lightly used a friend. If he comes to their hut they set on him with sticks, and batter him with their heavy brass bracelets. As he rushes away they follow shouting abuse until brothers hear the noise and join in the chase. Later the man will send a head of tobacco as a conciliatory present to the parents of the girl. If she becomes pregnant, a major case involving heavy compensation ensues. On the whole, male rakes gravitate towards girls of their own type. Ideally a girl should be a virgin at marriage, and there are still powerful social and religious sanctions to support this.

With increasing mobility, Dinka and Atuot use Mandari *lomore* and I have heard it said that having no courting huts in their own country and being unused to the etiquette surrounding those of Mandari, they sometimes mistake their purpose, and try to behave in a way of which Mandari disapprove. It is important to remember that huts are not places for affairs or sexual licence. Their object is to promote the meetings and eventual marriages of young people. Intelligence and wit as much as beauty or a handsome appearance are prized, and both girls and men try to charm by good manners and intelligent conversation. The huts in fact provide a valuable background of social training for both sexes. In them girls learn how to entertain men and develop an assured manner, and youths learn how to be at ease in female company.

Notes

¹ I have given a short account of the Mandari in *Tribes without Rulers*, edited by J. Middleton and D. Tait; as in that account I deal only with the Western Mandari, and not with people living on the Nile, also commonly known as Mandari.

² After bearing a child, and while she suckles it, a woman does not sleep with her husband. This may be for anything up to two years or so.

A SURVEY OF PHENYLTHIOCARBAMIDE (P.T.C.)-TASTING AND COLOURBLINDNESS IN PEMBROKESHIRE, WALES*

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1. Introduction

57 Pembrokeshire may be divided into two distinctive areas by an east-west frontier of demarcation which runs from Lampeter Velfrey to Narberth, Clarboston, Treffgarne and so to Newgale (see fig. 1). The areas on each side of this line are quite different 'in language, race type, place names, traditions, ecclesiastical architecture and general culture' (Bowen, 1957, p. 339). This frontier, or Landsker, is today as for many centuries a well marked divide perhaps best exemplified at present by the distribution of Welsh-speakers, since the proportions are everywhere high to the north of it and low to the south (fig. 1).



FIG. 1. PEMBROKESHIRE: THE LANDSKER

This north-south distinctiveness is largely the result of Norman and Anglo-Norman influences in the southern parts of the County and their pronounced absence in the northern areas (fig. 2). By design the Normans introduced aliens and before the close of the twelfth century there were numerous Flemish settlers as well as people from Normandy and England resident in South Pembrokeshire. Further, proximity to Ireland as well as close economic and political links with that country facilitated the entry of Irish and Anglo-Irish settlers especially to south Pembrokeshire during the reign of Elizabeth. As far as can be estab-

lished, therefore, in historic times the influx of peoples has been much more pronounced in south than in north Pembrokeshire and the north remained as it now is, Welsh in character.



FIG. 2. PEMBROKESHIRE: DISTRIBUTION OF NORMAN INFLUENCES

It has been suggested that the Welsh population in the northern high moorland areas may be descended from long established, even prehistoric groups there (Fleure and James, 1916, p. 73). 'We claim that the existence of neolithic survivals in considerable numbers in these districts (including north Pembrokeshire) is due to the persistence of these types near their early and natural locations' . . . 'we claim the hypothesis of long persistence or resurgence, almost, if not quite, *in situ*, . . . for explaining the distribution of racial types in Wales.' They suggest that this north-south difference in the County is valid in terms of anthropometric data.

In recent years genetic surveys of many populations have been conducted. By means, in particular, of simple segregating characters, it is possible to establish genetic patterns (or gene frequencies) which characterize populations. These patterns indicate their affinities with other populations similarly surveyed. Among the numerous genes whose frequencies vary geographically are the tasting genes. In Wales, surveys of P.T.C.-tasting have

* With two text figures and ten tables

been carried out (Beach, 1953; Partridge, Sunderland and Zeki, 1962) as well as surveys for the ABO and other blood-group systems (Mourant and Watkin, 1952; Garlick and Pantin, 1957). Mourant and Watkin (1952) suggest that there may be a high-A, low-O area in southern Pembrokeshire (see their map), and they claim that 'There may be an island of high O on and around the Prescelly Mountains in (north) Pembrokeshire, but further data are needed in order to establish this.'

Thus, by and large, there is a fair amount of evidence, of various kinds, to suggest a fairly clearly defined north-south division of Pembrokeshire, in anthropological terms.

2. The Pembrokeshire Data

The present study examines the tasting of P.T.C. as well as colourblindness in the County. Individuals with either one or both parents born in Pembrokeshire were included in the sample.

(i) *The sample.* A total of 1,037 individuals, mainly schoolchildren, was examined in March and April, 1962, the authors being assisted in the field work by Miss L. Partridge and undergraduates from the University of Durham. The parents' consent was obtained before children were tested. (Fig. 1 shows the location of the schools where the testing was done.) Of the 1,037 persons tested, 32 were excluded from the final analysis for a variety of reasons including close relationship with children already in the sample, inability to complete the test satisfactorily or the fact that their parents were, on examination of the records, found not to be Pembrokeshire people. Of the remaining 1,005 individuals, 529 are males and 476 females. The great majority of subjects are aged 7-18 years with only one child aged under seven years and a small proportion of the total aged over 18 years.

(ii) *Method.* The Harris-Kalmus sorting technique was used (Harris and Kalmus, 1949) with the number of solutions reduced, in this case to eight (compare with Allison, 1951). The solutions used had the following concentrations of P.T.C.:

- | | |
|------------------------|---------------------|
| 1. 1,300.00 mgm./litre | 6. 40.63 mgm./litre |
| 3. 325.00 mgm./litre | 7. 20.31 mgm./litre |
| 4. 162.50 mgm./litre | 9. 5.08 mgm./litre |
| 5. 81.25 mgm./litre | 11. 1.27 mgm./litre |

Thus the method employed retains solutions 3, 4, 5, 6 and 7 in which range the antimode of the distribution is expected. In this sample, the antimode is at solution 4 and it is possible to discriminate between tasters and non-tasters in the same way as is possible with the full test.

(iii) *Results.* With the antimode at solution 4, the non-tasters number 277 and the tasters 728 out of the sample of 1,005, giving 27.56 per cent. non-tasters. Of the 529 males, 27.22 per cent. are non-tasters; of the 476 females, the percentage is 27.94. The gene-frequency figures for the total population surveyed are $t=0.5250$, $T=0.4750$; for males only $t=0.5217$, $T=0.4783$; for females only $t=0.5286$, $T=0.4714$. Zeki (1961) reports that 'It has been found that, on the whole, females have a lower threshold than males. Most reports are agreed, however, that the

difference is rather small and not significant statistically.' Because of this slight sex difference, much of the following description and analysis is presented for males and females separately.

3. Regional Patterns

For the purpose of this survey, comparisons were made between the populations obtained north and south of the Landsker. Initially the comparisons between north and south Pembrokeshire were made using only those individuals with both parents born in the appropriate regions.

TABLE I. PEMBROKESHIRE MALE SERIES, P.T.C.

	North of* Landsker	South of† Landsker	Totals
Non-tasters	25.5§	39.5	65
Tasters	72.5	118.5	191
Totals	98	158	256

$\chi^2=0.0332$ for 1 degree of freedom, $p=0.50-0.90$. * Both parents born in Pembrokeshire north of Landsker. † Both parents born in Pembrokeshire south of Landsker. § Each individual with taste threshold at Solution 4 (the antimode) was assigned as 0.5 to the Taster category and 0.5 to the Non-taster category.

TABLE II. PEMBROKESHIRE FEMALE SERIES, P.T.C.

	North of* Landsker	South of† Landsker	Totals
Non-tasters	29.5§	40.5	70
Tasters	48.5	114.5	163
Totals	78	155	233

$\chi^2=3.3747$ for 1 degree of freedom, $p=0.05-0.10$. See also notes to Table I.

It is demonstrated that the two populations considered show no significant differences in the proportions of tasters and non-tasters.

In order to increase the number of individuals who could be used in the χ^2 tests, comparisons were made between males with both parents born north of the Landsker as well as those with one parent only born north of the Landsker, the other parent being either non-Pembrokeshire or of unknown origin, and those males with both parents born south of the Landsker or else with one parent born south of that line, the other parent being either non-Pembrokeshire or of unknown origins. A similar comparison was made for females.

TABLE III. PEMBROKESHIRE MALE SERIES, P.T.C.

	North of Landsker	South of Landsker	Totals
Non-tasters	31	98.5	129.5
Tasters	106	240.5	346.5
Totals	137	339	476

$\chi^2=2.0358$ for 1 degree of freedom, $p=0.10-0.50$.

TABLE IV. PEMBROKESHIRE FEMALE SERIES, P.T.C.

	North of Landsker	South of Landsker	Totals
Non-tasters	38	83	121
Tasters	73	233	306
Totals	111	316	427

$\chi^2=2.5685$ for 1 degree of freedom, $p=0.10-0.50$.

Again, no significant differences are established.

The males and females of the sample showed no significant difference when compared for tasting P.T.C. In the absence of male-female differences comparisons on a regional basis were made using the combined male-female series.

TABLE V. PEMBROKESHIRE MALE AND FEMALE SERIES, P.T.C.

	Males	Females	Totals
Non-tasters	144	133	277
Tasters	385	343	728
Totals	529	476	1,005

$\chi^2 = 0.0652$ for 1 degree of freedom. $p = 0.50 - 0.90$.

TABLE VI. PEMBROKESHIRE MALE AND FEMALE SERIES, P.T.C.

	North of* Landsker	South of* Landsker	Totals
Non-tasters	55	81	136
Tasters	121	232	353
Totals	176	313	489

$\chi^2 = 1.6189$ for 1 degree of freedom. $p = 0.10 - 0.50$. * Both parents born either north or south of Landsker

TABLE VII. PEMBROKESHIRE MALE AND FEMALE SERIES, P.T.C.

	North of* Landsker	South of* Landsker	Totals
Non-tasters	69	181.5	250.5
Tasters	179	473.5	652.5
Totals	248	655	903

$\chi^2 = 0.0011$ for 1 degree of freedom. $p = 0.95 - 0.98$. * Males and females with both parents born either north or south of the Landsker or else with one parent born north or south, the other being non-Pembrokeshire or else of unknown origin.

All the χ^2 tests on the Pembrokeshire material denote the absence of significant differences either regionally or between the sexes and one concludes that there is one homogeneous population with regard to P.T.C. tasting in the county. While this may be contrary to the anthropometric and blood-group data, the present sample is sufficiently large for some considerable reliance to be placed upon it.

4. Age and the Ability to Taste P.T.C.

Zeki (1961) reports: 'It seems to be generally agreed . . . that older people have a higher threshold than younger ones. The difference, however, does not seem to be too significant especially since in most investigations people of all ages are tested so that the high thresholds of the older subjects are balanced by the low thresholds of the younger ones.'

A very large proportion of the Pembrokeshire sample, however, is aged 7-18 years and this should be borne in mind when considering the total sample. It is difficult, in view of the age distribution, to assess any changes in the ability to taste associated with aging. In order somewhat to increase the total sample for this purpose it was proposed to include also the Black Mountain material (Partridge, Sunderland and Zeki, 1962), provided that this sample did not differ significantly from the Pembrokeshire data.

The Pembrokeshire and Black Mountain data could be pooled, since no significant differences were established between them, thereby giving a total sample of 1,276. Even

so, the vast majority of the sample is aged 7-18 years with comparatively few at greater ages. A simple comparison was made between those individuals aged under 20 years and those aged 50 years and over.

TABLE VIII. PEMBROKESHIRE AND BLACK MOUNTAIN MALE AND FEMALE SERIES, P.T.C.

	Age under 20 years	Age 50 years and over	Totals
Non-tasters	338.5	13	351.5
Tasters	840.5	29	869.5
Totals	1,179	42	1,221

$\chi^2 = 0.0994$ for 1 degree of freedom. $p = 0.50 - 0.90$.

This is clearly insignificant. In view of the nature of the data a more complex age/P.T.C. relationship statistic was not computed.

5. Colourblindness

The Ishihara tests (third edition, 1960, 24 plates) for colourblindness were used and they were read in well illuminated rooms during daylight. In accordance with Ishihara's statement on the analysis of the results, if, of the first 17 cards, 13 or more were read correctly, the vision was regarded as normal. If nine or fewer were read correctly then the perception of colour was regarded as defective. Individuals reading 10, 11 or 12 cards correctly were not encountered. Table IX summarizes the results obtained.

TABLE IX. PEMBROKESHIRE SERIES, COLOURBLINDNESS

	Number tested	Number colourblind	Percentage colour- blind
Males	530	37	6.98
Females	479	3	0.63
Total	1,009*		

* In addition to the 1,005 individuals tested for P.T.C.-tasting are four persons who read the Ishihara cards but did not complete the P.T.C.-tasting test

The frequency of colourblind individuals found north and south of the Landsker was compared:

TABLE X. PEMBROKESHIRE MALE SERIES, COLOURBLINDNESS

	North of* Landsker	South of* Landsker	Totals
Colourblind	9	25	34
Normal vision	129	314	443
Totals	138	339	477

$\chi^2 = 0.1080$ for 1 degree of freedom. $p = 0.50 - 0.90$. * Men with either one or both parents born north or south of the Landsker

Thus, as with tasting the P.T.C., no significant north-south difference was demonstrated.

6. Summary

1. With regard to the tasting of Phenylthiocarbamide and colourblindness, no regional variation was detected in the Pembrokeshire sample. The population of the County appears to be homogeneous for the characters examined.

2. There is no significant sex difference in the ability to taste P.T.C.

3. The data do not bear out the contention that the Landsker may be a very important anthropological divide.

4. There are insufficient data to indicate clearly any change in the ability to taste P.T.C. associated with aging.

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OBITUARY

Harper Kelley: 1896-1962

58 'Pat' Kelley will be greatly missed by a wide circle of friends on every continent. Born on 29 December, 1896, in Shelbyville, Illinois, he grew up in the Middle West, enlisted in the U.S. Army on 17 April, 1917, fought in France and was demobilized on 23 April, 1919. Upon returning to Illinois, where his father was a distinguished Judge, he became a highly successful bond salesman; but his thoughts kept returning to France.

Joining the American School of Prehistoric Research, Kelley became fascinated with prehistory. Accompanied by the Abbé Breuil, I first met Pat during the summer of 1927 in the Hotel Delsaut, St. Léon-sur-Vézère, where Dr. George Grant McCurdy was directing the School excavations at nearby Sergeac.

That was the beginning of our friendship and his long and productive association with the Abbé, an association which continued until 1961. From 1927 to 1937 they obtained large Lower Palaeolithic series from France and England. In 1929 Kelley accompanied Breuil to South Africa. Here they collected at many important sites for the Institut de Paléontologie Humaine and the Musée d'Ethnographie du Trocadéro (now Musée de l'Homme). Later that year Dr. Paul Rivet invited Kelley to organize a laboratory for Prehistoric Research; this was transferred to the Musée de l'Homme in 1937. The nucleus was his own private collection, greatly augmented during the next quarter-century.

The war years found Kelly at Harvard, where as an Arnold Fellow from 1943 to 1945 he installed the Prehistory collections in the Peabody Museum. Upon a previous visit home in 1930, Pat came to Chicago to assist me in cataloguing and selecting specimens for exhibition in the Hall of the Stone Age of Western Europe (Hall C) in Field Museum of Natural History.

In 1945 once again Dr. Rivet invited Harper Kelley to resume work at the Musée de l'Homme as Head of the Prehistoric Department and Maître de Recherches, Centre National de la Recherche Scientifique. During the next 15 years he resumed his field trips to the Somme Valley, where every quarry foreman kept 'cailloux' for him.

In addition to his own collecting, often with the Abbé Breuil, Kelley encouraged excavators in France and Africa to present their collections to his Department. Thus, after 30 years the Musée de l'Homme now possesses one of the greatest study collections in the world. To supplement these series, a magnificent reference library was assembled, both for the Musée de l'Homme and privately. His own reference library of bound monographs and thousands of scientific papers were bequeathed to the Museum.

He published an important series of technical papers, principally on the Lower Palaeolithic of northern France and South Africa, in French and English. Unfortunately, his monograph on the Lower Palaeolithic was not completed.

We shall all remember his kindness, warm friendship, un-failing good humour and particularly his generous assistance to all who came to the Musée de l'Homme. To his own writings must be added the detailed information supplied from a remarkable memory of specimens and literature and constant encouragement to researchers—all resulting in a large assembly of publications not bearing his name but inspired and improved by his great knowledge. His wife, Jacqueline, encouraged his work and gave him a son, Philip, known in prehistoric terminology as Kelley II.

No prehistorian has ever given more of himself to others. Born on the great plains of Illinois, Pat Kelley became a leader in World Prehistory. He will be sorely missed.

HENRY FIELD

SHORTER NOTES

Inter-Caste Marriage in Kugti Village, Upper Budl Nadl, Brahmaur Tahsil, Chamba District, Himachel Pradesh, India. By Dr. William H. Newell, *International Christian University, Mitaka, Tokyo*

59 During the month of August, 1962, I had the opportunity of revisiting the village of Kugti in the upper reaches of the Budl Nadl, a tributary of the Upper Ravi, in Chamba district of Himachel Pradesh, when I attended the pilgrimage to Lake Manimahesh coming back over the Chobu Pass (16,000 feet) via Kugti. I should like to record a few details prior to the publication of

my full report on the area as a supplement on the Scheduled Castes of Himachel Pradesh in the report of the Census of India.

There are two villages in the Kugti area, known as Upper Kugti and Lower Kugti. The next nearest village is Herser, a Brahmin village about 13 miles away down a difficult route along the Budl Nadl. Kugti is about 10,000 feet above M.S.L. and, on account of its height, has only one crop a year. During the winter the area is deeply under snow and most of the inhabitants emigrate further down the valley or to the Kangra Plains.

Lower Kugti has about 90 households and consists almost

entirely of Brahmans except that there are two families of Riaras, primarily concerned with playing musical instruments for weddings and about 12 households of Sipis, originally blacksmiths but now also stonemasons and carpenters. All the rest obtain their principal income from land. There is one shrine in the village, to *Banane wala*, also known as Marathi Devi, an incarnation of Kali. The priest of the shrine is Butha Ram, a *pujari*, and the medium (*chela*) of the shrine is also a Brahman. There is no special annual festival (*jatra*) although at the request of individuals, religious feasts (*narwala*) are held. All the Brahmans in Lower Kugti belong to the Utum *gotra* but their *al* are as follows: Ledha, Phungtian, Tamaretu, Jendeta, Tamrian, Ganeta and Sashi. An *al* is always an exogamic unit and is sometimes identical with a *gotra*, which has sometimes, although inaccurately, been translated as a clan. There is however no restriction on marriages between Brahmans and Gaddis, both men to women and women to men, with one exception: that those Brahmans of the Sashi *al* can only marry Brahmans, irrespective of the fact that the Brahman *al* into which they marry may themselves often marry Gaddis. The caste of a person is determined by the caste of the father only provided that the mother is either a Gaddi (predominantly Rajput) or a Brahman. The Brahmans of the Sashi *al* have as their special responsibility the regular worshipping of a shrine dedicated to Kaling on Sundays. This Kaling shrine is several miles outside the village and the god protects the pass to Lahul. Its god image was originally presented by Rajah Sher Singh and is part of the former Chamba State system of shrines. They are not responsible for any of the village shrines which are maintained by other Gaddi or Brahman villagers. The *pujari* of the Kaling shrine frequently marry into the families of *pujari* of other State shrines or outside the Brahmaur *tahsil*. In one family of the Sashi *al* that I recorded, Hari Bhaj's wife was from Dharmasala in Kangra and the mother came from the Nansen *al* of Hersher where all the Brahmans are State *pujari* of the shrines on Lake Manimahesh. The shrine to Kaling has no *chela*, only *pujari*. There are seven of these whose names are Hari Bhaj, Gungu, Khajana, Basi, Madha, Jogat and Jagdish, all of the Sashi *al*.

Upper Kugti is about half a mile above Lower Kugti and is about 500 feet higher. It consists of 30 Gaddi (Rajput) households and 22 Brahman households. These households are not territorially mixed but occupy the upper and lower portions of the village. The Brahman *gotra* in Upper Kugti are Bahradwarj, Bhesisht and Nagar Katoya. The Gaddi *gotra* are Darnya, Utum,¹ Solhanu, Churuh Bhesisht and Phagtya. The village shrine is about half a mile above the village and is called the Bhowari shrine after the god. The *pujari* comes from the Gaddi Bhesisht *gotra* and the *chela* from the Gaddi Churuh *gotra*. The father of the *chela* also held a position as *chela* of this shrine and he was also the father of Butha Ram's mother. The *pujari* of this shrine perform a regular worship on Tuesdays and there is also an official *jatra* which is held in Patroru. Goats are sacrificed but no *sur* (beer) is drunk.

All the members of the villages of Upper Kugti and Lower Kugti (with the exception of the Sipi and Riara families) freely interdine with each other and attend each other's shrine festival if they wish (including the Kaling *pujari* family). However if they visit any village outside Kugti, then those with Brahman fathers eat with Brahmans and those with Gaddi fathers with Gaddi. So cousins may interdine with each other in their home villages of Kugti but may have to eat separately if they go away from home and their parents have married into different castes. Outside Kugti in the other villages of the Budl Nadl valley, ordinary caste endogamy prevails and no Gaddi or Brahman may marry anyone except his own caste fellow (Newell, 1955b). No family from the Kugti area (other than the Kaling *pujari*, Sipi and Riara) ever marry any further down the valley than Kunni on the

boundaries of the *tahsil* although other villagers of the Brahmaur *tahsil* freely intermarry not only with those outside their *tahsil* but also outside Chamba district.

There are numerous examples of inter-caste marriage within Brahmaur of Kugti villagers. These are some examples:

Butha Ram, male, of Lower Kugti, Brahman of Utum *gotra* and Ledar *al* has as his wife Appu of the Lunge *al*, Gaddi from Retin village. His father's mother was a Gaddi of the Phagtya *al* from Upper Kugti. On the other hand, Butha Ram's mother's father was a Gaddi from Upper Kugti.

Dungsar, Brahman from Lower Kugti had as husband, a person from the Churu *al*, a Gaddi from Upper Kugti.

Pragum, a Brahman of the Bahradwarj *gotra*, Rattan *al* from Upper Kugti married a Gaddi woman also from Upper Kugti, Tehya. His son Dassar took as wife Gala from Brahmaur from the family of Jeram Punditu, a Brahman.

Thus the situation is one where both Brahmans and Gaddi freely intermarry (except Kaling *pujaris*) and have no other commensal or other restrictions while in Kugti; although when they leave Kugti they observe the rules of the rest of the valley. Brahmauri from elsewhere pay no attention to any infringement of caste rules provided that it does not take place in their immediate area. Since marriage takes place in both directions, this is not an example of hypogamy or hypergamy, and since the Brahman and Gaddi castes still retain their complete identity, this system is not an isogamous system. It may be described as a quasi-isogamous system since caste is determined by the father only.

All the Brahmans and Gaddi of Kugti received their principal livelihood from agriculture. There are no *parohit* (family priests) nor do any *pujari* receive more than a few rupees of gifts during the year. However all the villagers of both Upper and Lower Kugti of all castes obtain the priestly services of a *parohit* from one family, who does not live in Kugti but in Sutli village below Herser. There is no *parohit* in the village. Originally from Pulni village, the *parohit* stated in an interview, that his ancestors moved with the first settlement to Kugti to Sutli village. Since it takes at least a full day's journey from Sutli to Kugti and more with the slightest inclement weather, it is difficult to see how he can adequately perform his duties from such a distance; but he stated that he usually attended only during the official marriage seasons when he lived in Kugti for a long period. On enquiry about regular caste intermarriage between Gaddi and Brahmans, he stated that in his opinion there was no fundamental difference between the two castes and that Brahmans were no better than Gaddi since both undertook the same occupations and lived together. But his own *gotra* married only into Brahman families outside Kugti. I noticed when I interviewed him in his home at Sutli village that he did not remove the stem of his hookah while smoking with Gaddi men (Newell, 1955b).

This brief summary of the caste situation in Kugti does not modify the conclusions of my earlier article (Newell, 1955b), although it is clear that caste intermarriage had not been abandoned at the time of my earlier visit in 1951. A Gaddi-Brahman marriage has been celebrated in 1960. The situation by which the caste of a child is determined exclusively by the father's status (provided that the mother belongs to the Gaddi or the Brahman caste) does not seem to have affected the stability of the caste system which has operated in this way in Kugti for at least 100 years. However, in order to make the system operate a number of conditions have had to be fulfilled, which appear to be: (a) the family of the *pujari* of the national Kaling shrine have had to marry only Brahmans; some daughters and sons have been given to the *pujari* families of the Brahmaur (State) temple and elsewhere; (b) the *parohit* of the villagers lives elsewhere and is not part of the connubial system; (c) the surrounding villages have had to

be tolerant of the situation which has arisen and if a Gaddi or Brahman family elsewhere in the Budl Nadi valley find themselves with affines of another caste, then they carry out ordinary food restrictions to their relatives as far as possible at least in public. This possibly unique instance of contemporary regularized inter-caste marriage in India does not imply a breakdown in the caste system but is merely a special adaptation of the isogamous situation already described in my earlier article.

Note

¹ Identical *gotra* may be found in all castes. An *al* is a subdivision of a *gotra* and often replaces a *gotra* name as the largest group with which marriage is prohibited.

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 —, (1955b), 'The Brahman and Caste Isogamy in North India,' *J. R. Anthropol. Inst.*, Vol. LXXXV (1955), pp. 101-10.

Prehistoric Rock Engravings near Poona. By Professor D. D. Kosambi, Poona. With three text figures

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The engravings in question lie on Vetal hill, named after a primitive cult to the west of Poona city's municipal limits. This shrine is located on sheet 47-F/14 of the Survey of India (1 inch = 1 mile) maps, close to a triangulation

station at Long. 73°. 49' E, Lat. 18°. 31'. 33" N., height 2,365 feet above sea level. The photographs shown here refer to a small group of rock engravings 600 yards to the south-east and a more extensive lot about the same distance due north, from the triangulation mark. The former group was damaged by hand-quarrying for blocks, while the latter is being blasted away



FIG. 1. ENGRAVED ROCK NEAR POONA (SECOND GROUP)



FIG. 2. ENGRAVED ROCK IN FIRST GROUP

FIG. 3. ENGRAVED ROCKS IN SECOND GROUP

At top, note fractured chalcedony nodule still embedded at centre.

steadily for rubble. A few intermediate rocks show traces of prehistoric figures, as do the marginal rocks on a plateau 1,000 yards due west. A set of over 50 cairns 2,300 yards west by south probably represents a necropolis which re-used some engraved boulders; this point may soon be settled by excavation.

No local tradition survives about the people who carved the lines, or about the marks themselves. Older villagers maintain that the plateau was occupied at one time by pastoral (*gavali*) migrants from the north who did not use the plough.

The exposed basalt bedrock on which the engravings (except for one on a small boulder) occur is covered with lichens or a thin film of dead fungus which makes it difficult to photograph the lines. In the absence of apparatus for special lighting, chalk had to be used. The grooves sometimes reach a depth of two centimetres (e.g. fig. 2), show no tool marks and are rubbed smooth to a semi-circular cross-section. The telescope used for scale is 47 centimetres long.

The pit that generally marks the centre of a circle (or a set of concentric circles) seems to be the matrix of an imbedded chalcedony nodule. Such a nodule is still *in situ* in fig. 3, though fractured. These circles might lead to the stylized 'conch' and 'labyrinth' linear decorations sometimes painted on modern Hindu temples. Modern efforts on the hill do not go beyond scratching names or initials on the bedrock with a sharp stone, or figures which look primitive enough but disappear after one season's rain. Two parallel rows of shallow pits, found on one exposed bit of rock far away from these sites, indicate a gaming board used by herdsmen who had their annual monsoon grazing camp at or near the site.

A Note on the Use of the Polaroid Land Camera in the

Field. By J. N. Peterson and N. Sebag-Montefiore, Cambridge Expedition to Northern Peru

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As a result of our experience in the field in the summer of 1962, we are led to suggest that the Polaroid Land camera may be a small but useful aid to field work. (This camera produces a print, but no negative, within ten seconds of the photograph being taken, and if used in bright conditions produces a very clear snapshot.)

Two of its uses struck us particularly. First, it was invaluable for making friends with and gaining the confidence of the tribe which we worked with—the Aguaruna Indians of the Upper

Marañon. Because they could have photographs for themselves they did not mind our using the ordinary cameras as we wished. The agricultural instructor with whom we stayed told us that generally they were reluctant to be photographed. We did not become aware of the second use until we had stayed in one village for a couple of days. But it soon became apparent that, if we left the organizing of who was to be photographed with whom to the Aguaruna, they organized the groups in terms of seniority and kinship, and that other basic elements of the village's social structure could be elicited. But we believe that it was only because they received the photograph straightaway for themselves that they took such an interest in the grouping.

An interesting phenomenon which we observed and which indicated differing spatial concepts was the way in which the photographs were held. In the second village visited, which was much less sophisticated, and where several of the people had not seen photographs of themselves before, they held the photographs with the long edge horizontally, regardless of whether the person or group photographed were lying on their side. Little attention was paid to our efforts to turn the photograph so that the people were standing on their feet.

We think that this camera would be of most use to the physical anthropologist or other anthropological specialist who has only a short period to work in the field, but who would nevertheless like to collect some sociological information. The use of the camera, in our experience, has brought rapid acceptance of the anthropologist, even if only as somebody to be exploited, and also makes possible the collection of some information about the village structure.

Note

Mr. William Fagg, British Museum, adds the following:

'I found an early model of the Polaroid Land camera similarly useful in 1953, during field work in the Yoruba country of Nigeria, not only as a quick way of enlisting the interest and goodwill of chiefs and others during brief visits to their villages (and also of discharging in a conveniently simple way the obligation which we all so lightly enter into of sending them prints of the photographs which they permit us to take), but also as valuable insurance against failure of 'normal' photographs when recording progressive stages of excavations (in this case at Ife).'—ED.

CORRESPONDENCE

Prescriptive Alliance and the Pende

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SIR,—Five years ago I published an article on patrilineal cross-cousin marriage in which I maintained, on the basis of a monograph by the Revd. Fr. L. de Sousberghe (*Structures de parenté et d'alliance d'après les formules pende (ba-Pende, Congo belge)*, Mémoires in-8°, Académie Royale des Sciences Coloniales, Classe des Sciences Morales et Politiques, Vol. IV, part 1 (Ethnographie), Brussels, 1955), that the Pende of the southern Congo did not practise patrilineal prescriptive alliance, but that marriage with the father's sister's daughter in that society was only preferential ('The Formal Analysis of Prescriptive Patrilineal Cross-Cousin Marriage,' *Southwestern Journal of Anthropology*, Vol. XIV, 1958, p. 213).

Mr. Robert Lane, of the University of Pittsburgh, has now brought out an article in which he goes to rather considerable lengths in an attempt, similarly based on Fr. de Sousberghe's account, to show that I have ignored evidence in this monograph which 'overwhelmingly supports' an opposite conclusion ('Patrilineal Cross-Cousin Marriage: Structural Analysis and Ethnographic Cases,' *Ethnology*, Vol. I, 1962, pp. 483-91). 'The Pende of the Kasai region,' he asserts, 'constitute a well reported and clear case of a

prescriptive patrilineal cross-cousin marriage system' (p. 491). He is so deeply convinced of the correctness of his own interpretation that he feels justified in appending a note of 'stricture' in which he reproves me for my careless reading of the source (p. 498, note 9).

His detailed arguments, and his incidental asseverations on matters of scholarship, require an extended examination, which I intend to publish eventually in an analysis of Pende social organization. This, however, will necessarily take quite a time to appear, and there seems no reason to delay by so long the present decisive report on a matter of published ethnographical fact and on an analytical conclusion to which I have clearly committed myself in print.

Fr. de Sousberghe, who is acquainted with the controversy, confirms explicitly (in his letters to me of 3 and 21 January, 1963) what may readily be seen in the facts recorded in his monograph, and kindly permits me to quote him to the following effect: 'Marriage with the patrilineal cross-cousin among the Pende is not prescribed: it is merely preferential.'

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Malinowski and the 'Chief'

63 SIR.—Mr. J. P. Singh Uberoi recently published a book on *Politics of the Kula Ring: An Analysis of the Findings of Bronislaw Malinowski* through the Manchester University Press. As he had carried out this analysis under our aegis, we wrote a 'Foreword' to his book, in which we emphasized Uberoi's re-analysis of the position of the Trobriand Paramount Chief. We stated that at the time when Malinowski named this individual 'Paramount Chief,' he was: 'not even the most influential man, although it seems that his predecessor had been the most influential man in his time. But even he was far removed from an African Paramount Chief. In fact, the Paramount Chief was well on the way to becoming social anthropology's Piltown Man; not that Malinowski was a forger, but he certainly attributed to this man a position he did not have; and his interpretation has bothered anthropologists, while no satisfactory answer to the

problem was found.' This character had long been seen to be anomalous, as Piltown Man was seen to be anomalous. The publishers, in writing the note for the dust cover of the book, took up this point and wrote that: 'This book presents a new analysis of the material, in terms of contemporary theory, and incidentally exposes as a fiction the "Piltown Man of social anthropology"—the Paramount Chief of whom Malinowski wrote.' We were not shown this truncated citation from our foreword; and lest anyone be misled by it, we should be grateful if you would give us the opportunity to repeat that we do not for a moment suggest that Malinowski 'faked' his material as Piltown Man was faked. Indeed, the opposite is clearly true: for Uberoi was able to put the 'chief' into new perspective only because of the honest comprehensiveness as well as the accuracy of Malinowski's rich material.

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REVIEWS

AFRICA

Belgian Administration in the Congo. By Georges Brausch. London (O.U.P. for Inst. of Race Relations), 1961. Pp. [xi], 92. Price 7s. 6d.

64 Mr. Georges Brausch used to be an administrator in the Belgian Congo, one in tune with the times and sympathetic to nationalist hopes of Africans. It is right that such a voice should be heard in England where all too often Belgian colonial policy is judged as if it had an impossible unity.

The first chapter gives facts and figures about the tremendous industrial development in the Congo, rise in standards of living and provision of welfare and educational services. The next gives information about race relations, and particularly how these improved in the nineteen-fifties. The third discusses Congolese participation in government and the vexed question of training of African leaders. Lastly a chapter shows how conflicts between Europeans at different levels aggravated the difficulties of the administration. This is indeed the underlying theme of the book—an object lesson in how a colony can be lost through the working of the democratic process in the mother country.

This is a frankly highly partisan account. The author burns with indignation on behalf of strong, enlightened Liberal ministers constantly thwarted by their conservative opponents, the Christian Socialists. When the Colonial Minister was a Liberal the opposition maimed or blocked his projects and the Christian Socialists, when in power at the Ministry, stalled on projects set afoot by their predecessors. The Liberals were in favour of Africanization of the colonial services, of development of local government on traditional bases, of equal pay for equal work, of training African leaders, and of developing secondary education. Their reactionary opponents, in thrall to Church and Commerce, dubbed them Mau Mau or Marxist or both. By inference if the Liberals had had a free hand the Congo *débâcle* might have been averted.

Political letting-down of hair in this way is always salutary and stimulating. It brings the focus closer to the real stuff of politics and stops vague criticisms of the Belgian colonial tradition as if it were a single whole. Such open partisanship provokes the reader into questioning its assumptions, for the forces of progress and reaction are rarely so simply aligned. If in Belgium they were indeed so black and white, as Mr. Brausch implies, it is here that we should seek the full explanation of the collapse of the Congo.

MARY DOUGLAS

Congo, Mai-Juin, 1960: Rapport du Ministre Chargé des Affaires Générales en Afrique. By W. J. Ganshof van der Meersch. Brussels, 1960. Pp. 482, maps.

65 For the last five weeks before Independence a minister of the Belgian government was appointed with full powers to preside over the transfer of control from Belgium to an independent government of the Congo Republic. Mr. Ganshof van der Meersch accepted this brief mission fully conscious of its extreme

difficulty and delicacy. His appointment was to ensure that Belgium would not in time to come be reproached with having left 'a crumbling administration and judiciary, an anarchic situation.' Since that reproach has been made it is as well that the Minister has been allowed to publish the full report which he made to the Belgian Chamber and Senate. Though written as baldly as possible the report is inevitably an apologia and an accusation. Tremendous difficulties impeded the task of leading the Congo peacefully to independence.

The minister arrived to find the Governor General widely criticized for indecision, the administration in retreat from responsibility, the judiciary effectively dismantled by untimely reorganization and Europeans demoralized. The arrival at the same time of Belgian troops simultaneously raised European and depressed African morale. His first task was to apply the *Loi Fondamentale* which laid down that the man appointed to form a government was to be whose team of ministers would command the confidence of parliament. Although Patrice Lumumba had by far the largest following, he had no majority and many enemies among the other party leaders. His only rival of any stature was Kasavubu. The long series of negotiations and various attempts to form a government which these two leaders made in turn are fully documented together with detailed returns of the parliamentary and provincial elections. The book is an honest record of the discharge of a thankless and hopeless mission.

MARY DOUGLAS

Congo: Background of Conflict. By Alan P. Merriam. Evanston (Northwestern U.P.), 1961. Pp. xiii, 368. Price \$6

66 This study was produced extremely quickly to meet the demand for popular background information on the Congo at the time when its (still unsolved) problems filled the world's headlines. It is a very useful general summary and work of reference on Independence, before and after. There is a general history of the Congo, the main sequence of events leading up to Independence—manifestations, speeches and riots. A nearly day-to-day journal of the six weeks after Independence includes the mutiny of the Force Publique and the mass escape of Europeans, the arrival of U.N. troops and Katanga's declaration of independence, Lumumba's quarrel with Kasavubu; and it ends on 20 September with Mobutu's College of High Commissioners in power. The journal is given as a series of disconnected news headings, with no analysis, probably a sensible plan since the writer claims to be qualified in ethnomusicology rather than in politics. He was in the Congo for much of this time, making a field study of the Songye in the Kasai, and some of the most vivid parts of the book are his records of the complete confusion and ignorance felt in a remote Congolese village suddenly told to vote. Very useful too are the selected speeches and manifestoes appended to the book.

Although the author leans over backward to be fair, a very common anti-Belgian bias appears in his scattered criticisms, some

of them neither true nor sound. For instance, he charges Belgians (p. 34) with having discouraged European settlement in the Congo, while the truth is that Liberal Colonial ministers have constantly been criticized for over-encouraging settlers, and certainly some British colonial problems would have been simpler had settlers been less encouraged. Other criticisms are distinctly patronizing in style: 'Perhaps we can overlook the failure to understand the changes in organization that Belgium was proposing, though any one of their anthropologists could have told them so, but we cannot overlook the fact that the Congolese were utterly unprepared...' (p. 61).

On the subject of education he pays just tribute to the great effort to give primary schooling on a massive scale, but snatches away the bouquet at once by condemning mass education as merely an aspect of Belgium's refusal to produce an educated élite (p. 42). This common criticism of their policy lacks perspective. Every other Colonial power hitherto has been criticized in turn for giving a too narrowly based education and thus producing an élite out of all contact with the masses of their countrymen. The educational experiment which the Belgians were making failed for lack of time, but in itself was a defensible policy. The real criticism of the Belgians is that they did not know how short their time was.

In a balanced summing-up the writer gives full weight to the effect of the mutiny of the Force Publique and the panic and re-tributions which followed. Looking back, this unpunished mutiny has an inverse parallel in Indian history with the riots at Amritsar which were so brutally punished. If Indian politicians in 1919 had been able to summon great foreign armies to their aid and influence world councils, they too could have forced a speedy and chaotic end to their colonial dependence. And the British record of education and training for leadership, etc., would have been no better than that of the Belgians. As it was, world opinion effectively disarmed the latter, forcing them precipitately to leave the Congo, and has never ceased to wag its finger at them for doing so.

MARY DOUGLAS

Études bakongo: Sociologie-religion et magie. By J. Van Wing, S.J.; 2nd. edn. *Bruges (Desclée de Brouwer)*, 1959. Pp. 512.

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Father Van Wing long postponed any re-edition of his original two-volume work until he should have time to add a section on more recent aspects of tribal life. Finally he was persuaded to delay no more but to bring out the original with minor amendments, in one volume. This is a very welcome publication, not least because the book which has become so difficult to find has been much read by the Kongo tribesmen themselves and has contributed not a little to the sense of history and of cultural importance which inspired their effective political organization in 1959.

The new volume is pruned of some European comment and interpretation. The native texts are fully preserved and the book is more than ever a vivid ethnographical document which has striking freshness and modernity for a work of 25 years' standing. Most interesting is the scrupulous discussion of religious and magical concepts. Rather than distort their meaning by crude translation, he examines key words such as *loka*, to bewitch, *nkisi*, fetish, *nzambi*, God, exploring their principal contexts and showing their use in prayers, songs and incantations. A glossary of Kongo terms would have been a useful addition.

At the centre of their religion lies the cult of the collective clan ancestors. To be convinced that they are venerated as a collectivity one would like a slightly sharper genealogical focus in this section. The book affords one of the clearest and most authoritative studies of witchcraft and sorcery in Central Africa. The Kongo distinguish between an affronted parent's or uncle's right to curse, intra-clan witchcraft which is the eventual excuse for fission into exogamous units, congenital witchcraft and acquired powers of sorcery. Father Van Wing draws the distinctions with fine sociological acumen, and gives an account of divination and the old poison ordeal.

The last section is devoted to Kimpasi, a cult association in which sexual licence and ritual learning are variously combined in different Kongo tribal areas. Elsewhere Father Van Wing insists on the pure,

authentic Kongo character of the religion which he describes, and so one wonders whether it is dry Jesuit humour or simple pride in the history of his Order which impels him to recognize (p. 477) seventeenth-century Jesuit influence in some elements of Kimpasi.

MARY DOUGLAS

An African Economy: A Study of the Economic Development of the Nyanza Province of Kenya, 1903-1953. By Hugh Fearn. London (O.U.P.), 1961. Pp. xviii,

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284. Price £1 15s.

This book is a further volume emerging from a comparative research project carried out in neighbouring areas of Kenya and Uganda dealing with the growth of African leadership. Dr. Fearn is concerned with economic leadership; his field is the Nyanza Province of Kenya; and his central theme is the response of the Nyanza people to the economic opportunities offered by the introduction and development of a cash economy. He sees the half-century which he covers as being divided into two periods, that first of 'the static economy' up to 1930, a period characterized by the failure to establish cotton as a cash crop (in the way in which it was established in Buganda), and secondly the period up to 1953 when under 'the stimulated economy' produced by accelerated external influences Nyanza farmers grew more maize as a cash crop. The book's final impression tends to be gloomy: it emphasizes the failure of the African farmer to respond to the forms of economic enterprise that have been offered to him.

An impressive amount of documentary evidence and oral testimony is marshalled in the book and it is not perhaps for an anthropologist to criticize it. Yet the more I read through the detailed expositions of economic enterprise in the form of trading, co-operatives, mining, plantations and so forth, the less happy I felt about the general terms of the discussion. Frequent mention is made of 'the Nyanza economy' and 'the Nyanza African' but what are these entities and what significance can they claim? Do they mean any more than if one were to speak of 'the Essex economy' or 'the Essex Britisher'? Pace the title of the book, Dr. Fearn's subject is not an African economy but a cash economy in Africa. If the race set is not of his own making can we blame the 'Nyanza African' for his failure to come up to the mark?

M. J. RUEL

La condition de l'afrique en Afrique noire. By F. Plisnier-Ladame. Centre de Documentation Economique et Sociale Africaine: *Enquêtes Bibliographiques*, VII. Brussels, 1961.

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Pp. 241, 2 indexes. Price 200 Belg. francs

This bibliography with 1,400 entries is not intended to be exhaustive: it covers the more important publications over the last ten years. Authors are arranged in alphabetical order, and for each item there is a brief indication of contents. The proof-reading might have been better, and the allocation of some works to the sectional headings is perhaps inevitably a little arbitrary: that dealing with matriarchy produces a very mixed bag. However, this is a useful work of reference, the more so as it brings together a considerable body of references for the Congo.

PHYLLIS KABERRY

Communication in Africa. By Leonard W. Doob. New Haven and London (Yale U.P.), 1961. Pp. xvi, 406. Price £4

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Dr. Doob is primarily interested in communication and secondarily in Africa. He has set himself the task of 'exploring the boundaries of communication,' that is, of all the variables that may affect it; and he has chosen to illustrate each of these from African material. As he admits in his final paragraph, discussion of the subject involves the discussion of practically every aspect of behaviour. Those who maintain that social systems are 'symbolic systems' or 'systems of social relationships' are concerned with much the same range of phenomena as he would include in a communications system, and one almost wonders whether his exposition would not have been more cogent if he had taken all his illustrations from one society and thus shown the interrelations of his variables.

He concludes with the hope that his analysis may 'proffer greater insight into Africans and contemporary Africa,' and that 'our

struggling African friends may eventually emerge with satisfactory modes of communication.'

People responsible for communication of an instructional type may be interested in his discussion of 'feedback'—which includes assumptions made before starting about factors that may affect the receptivity of the audience. The factors which he mentions are often just those that a social anthropologist would consider important.

But when he observes that the Mende 'have responded more favourably to dress than to marriage ceremonies' (p. 352), or writes of 'a social situation, whether a slum, a paradise or closer to the mean' (p. 6), he is in a different world. One cannot help wondering in what situation the use of the word 'lawfulness' to mean the establishment of scientific laws leads to effective communication.

LUCY MAIR

AMERICA

East Indians in Trinidad: A Study of Cultural Persistence.

By Morton Klass. New York and London (Columbia U.P.), 1961. Pp. xxvii, 265

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It is interesting to compare this book with Dr. Adrian Mayer's recent study of Indians in Fiji, *Peasants in the Pacific*. Dr. Mayer went to Fiji direct from work in India and he makes the point at the beginning of his study that the Indian immigrants to Fiji did 'not rebuild their old society. Instead, they were forced to build an entirely new one—the Fiji Indian—which was a response to conditions in Fiji, even though many of its ways were still Indian.' Dr. Klass adopts the opposite point of view—that the members of the Indian community which he studied in Trinidad have recreated in an alien land a community which is alien in culture. 'The settlers of Amity succeeded in reconstituting a new community. It exhibited the structure of what might be called the generalized north Indian society. The founders of the village were able to reconstitute social institutions which could be maintained by their descendants, and which functioned as mechanisms for the transmission of their culture and the maintenance of community cohesiveness.' These differing points of view do not greatly affect the quality of the field work, which is quite high in both cases, but they do affect the interpretation of the data and their selection to some extent. Certainly the differences in the points of view do not flow from the nature of the communities studied; if anything the Fiji Indians are much more 'Indian' than those in Trinidad since they still use Indian languages as a normal medium of interaction.

Dr. Klass's analysis raises a number of questions of methodological significance. He proceeds, as many anthropologists might proceed, by choosing a local community for intensive first-hand study. The village of Amity is quite large, having a population of approximately 4,000 people who are mainly of Indian descent. With clarity and skill Dr. Klass draws a picture of the 'Indian culture' of this Trinidad village population. He elicits from his informants their caste prejudices; their marital customs and kinship patterns; their economic activities and their religious practices and beliefs. These are all 'basically Indian' according to Dr. Klass. Of course he recognizes that there has been change: of course caste restrictions do not exist as they do in India; of course kinship patterns are not the same as in an Indian village; of course the details of religious observances have been modified; of course the interdependence between landowner and tenant or between estate overseer and sugar worker is not quite a *jajmani* relationship. Still Dr. Klass points out the similarities in great detail. It is Professor Herskovits and 'African survivals' all over again except that there is much more of an obviously Indian culture to be described. Studies of cultural continuity are both important and interesting but one cannot ignore the further question of the manner in which these cultural forms operate in the contemporary social situation; this is also a part of the study of continuity and discontinuity. What new meanings attach to cultural forms and how are they related to the non-Indian culture which the villagers of Amity also bear but which gets scant mention in Dr. Klass's book? He has very little to say about schools and education for example. His material on caste beliefs is fascinating but he totally fails to show how these beliefs operate in relation to the system of stratification in which the villagers are involved. He gives the impression that he thinks that caste is the real basis of social ranking despite his own evidence to the contrary. The presence of caste names is no more evidence of the operation of caste than the existence of orders of chivalry is an indication of the presence of feudal institutions in contemporary Europe.

The situation so far as research is concerned in the West Indies bears some resemblance to that described for Burma by Leach in his *Political Systems of Highland Burma*. Anthropological reports tend to describe separate ethnic cultures; Negro communities, Chinese communities, Indian villages, Amerindian tribes. Each is presented as an integrated unit with a brief recognition of the fact that it is embedded in a wider political unit, yet it is evident to the careful observer that the groups which bear these ethnic cultures are linked to each other and to the society of which they are a part by an enormously complex interactive network. An attempt has been made to deal with these interdependencies by speaking of 'the plural society' or of 'levels of socio-cultural integration' and both devices are a welcome elevation from the level of the simple community study. It is clear though that we need to improve our techniques of 'placing' studies of sub-groups within a wider frame of reference in order to push back and to define the 'limits of our naivete' as the Manchester group have expressed it. This is not easy and the question of defining the boundaries of theoretically relevant systems faces the student of all but the simplest of societies; it is perhaps the major problem of contemporary African studies for example.

That Dr. Klass fails to raise his analysis beyond the level of the simple community study is not entirely his fault and it does not mean that he has not produced a very worthwhile book. It contains rich material for comparative study and gives an excellent impression of the specifically Indian aspects of life in a Trinidad village. I believe that it gives a false impression of the isolation and separatism of the Indian community in Trinidad and this really flows from the author's failure to appreciate the fluidity and ambiguity of 'Indian culture' in the Trinidad setting.

R. T. SMITH

Northwest to Fortune. By Vilhjalmur Stefansson. London (Allen & Unwin), 1960. Pp. 356, maps. Price £1 10s.

72

Vilhjalmur Stefansson's life-long active interest in the Arctic lands clearly stimulated the writing of this book. The title indicates that the book is not limited to a factual account of the exploration of the North-West Passage. As always, the author is concerned to foster interest in the economic development of northern lands. He rightly points out that commercial interest in the sea route around the north of Canada died with the tragedy of the third Franklin expedition and successful navigation of this northern passage had to await Amundsen's voyages in the *Gjoa*, 1903-1906. Between the times of Franklin and Amundsen, interest was transferred to land routes and was largely activated by the fur trade. In discussing the phases of land-exploration, Stefansson emphasizes the significance of the Mackenzie and Yukon valleys in the provision of a downstream great-circle route from the heart of the North American continent towards China, a portage leading from the delta of the Mackenzie to the headwaters of the Porcupine component of the Yukon system. The account of the explorations of these significant waterways is kept alive by discussion of the rivalries between the agents of the Hudson Bay Company and of the North West Company and by a lacing of shrewd comments on practical topics such as the importance of pemmican and the problems of canoe and sleigh transport.

Stefansson brings the story up to date by discussing the events leading up to the construction of the Alaska-Canada Highway and the development of oil wells in the Mackenzie valley. His disappointment at the failure to develop the Mackenzie route is quite evident.

A book by someone who has given a lifetime to an absorbing and worthwhile interest must always attract attention and command respect. Whilst it does not contain much of direct value to the anthropologist, this book must appeal to those who share the geo-

grapher's interest in the lands in which people live. Geographers will find this book profitable reading and will simply ask that in future editions the maps should be given scales.

S. J. JONES

EUROPE

The Fishermen. By Jeremy Tunstall. London (Macgibbon & Kee), 1962. Pp. 294. Price £1 5s.

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This is an account of the Hull distant-water fisherman. The author announces the nature of the book in his introduction: It is intended for the general reader... 'but the account is a sociological one... From what has been already said, it is obvious that this book is not intended to be a work of neutral social science. I am on the side of the fishermen.' It gives a rounded picture of the occupation, dealing with such topics as its recent history; its industrial and social milieu; ancillary occupations; recruitment; labour relations; relations among crewmen at sea and on shore; the problems of the skipper; recent policies of trawler-owners and of the Fishermen's Trade Union.

Combining two conventions of presentation is difficult, but Tunstall succeeds admirably in most chapters; the reader gets the feel of the fisherman's 'average day' and an understanding of his job and its harsh conditions, while the information is so ordered that sociologists can readily make use of much of it. Only one chapter seems to me to fail rather badly (within the terms which the author sets himself), a short one entitled 'Fisherman's World Picture' which turns out to be brief discussions of luck, fatalism, belief in God and attitudes to soft jobs on shore, conducted on a very popular level with not very many supporting data.

From the sociologist's point of view, the drawbacks to the sort of presentation achieved are that few of the motifs that he is interested in are systematically explored, evidence on a given point is liable to be found scattered in different contexts, and sometimes a generalization is made rather to round off a rhetorical discourse than to expose a meaning in the data. For example, in the chapter on 'Recruitment,' the author argues that although fishermen themselves declare it to be the case, it is in fact a 'myth' that there is 'a family tradition in fishing,' that fishermen are all sons of fishermen, etc. The evidence which he adduces is that only 42 out of 116 when asked replied that their fathers had been fishermen; he adds in a footnote that 'this may exaggerate somewhat since... some of the fathers were not fishermen all their working lives.' It could equally well be an underestimation for the same reason. In a later chapter on skippers, we are told that two-thirds of skippers' fathers had been fishermen of whom one-third themselves had been skippers, that a skipper's son has a better chance than most of becoming skipper, while on other pages we learn that skippers and mates are interchangeable (were mates included then in these calculations?) and that skippers form an 'indispensable' core in the industry whereas deckhands being unskilled are easily replaceable. This sort of information seems to indicate that recruitment, turnover and wastage could bear a more extended analysis in relation to the family and to career patterns.

However, I do not want to sound a carping note over a very readable book intended to interest the general reader, nor to convey the impression that because the intention has succeeded it has nothing to offer the sociologist. There are many perceptive passages on fishermen's relations to each other and to 'the shore'; the des-

criptions of the role of the skipper ('a super-tax proletariat') are particularly good, the account of a trawler-owners' publicity campaign is instructive as well as amusing. The author's identification with his subjects is here and there responsible for an irritating naive tone but also for the striking impact of the book as a whole, from which emerges a terrifying picture of one of the rough types of industrial worker, totally unimpressed by the nice things that respectable people do and have, convinced that he is at the mercy of a corrupt system, his hardships exploited by publicity men in the interest of the public image of his rich employers, and forced in the absence of religious instruction, humanistic education or even political hopes to try to make a philosophy out of the job.

JAMES LITTLEJOHN

The Poet and the Spae-Wife: An Attempt to Reconstruct Al-Ghazal's Embassy to the Vikings. By W. E. D.

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Allen. Dublin (Figgis) (London: Viking Society for N. Research), 1960. Pp. 102

About A.D. 832 a great Viking fleet, under a leader called by the monks Turgesius, came to Northern Ireland, and by 843 or 844 Turgesius had conquered enough of that part of the country to establish 'something like a Norse kingdom.' In or before 843 he had turned the monks out of Clonmacnois on Shannon, and installed his wife Ota on the high altar, where she 'gave her answers,' which can be taken to mean that she was a spae-wife. In 845 Turgesius fell into the hand of the Irish king Malachy, and was drowned in a lake.

In 844 a Viking fleet, probably the one which had sacked Nantes, was defeated in a raid on Corunna. It sailed south, and after sacking Seville and other cities was defeated with heavy loss by the troops of the Caliph of Cordova. Soon afterwards it sailed away and was not heard of again.

These facts, if facts they are, are drawn from Keary's *The Vikings in Western Europe*. 'Keary,' says Mr. Allen, 'gives a good running account of the career of Turgeis,' but this account contains no suggestion that Turgeis ever left Ireland, or that he had any connexion with the fleet which sacked Seville. Yet Mr. Allen speaks of his 'aggression against Seville' as if it were an established fact, and on it bases his 'reconstruction.'

The story which forms the subject of his book was written by one Ibn Dihya, who died in 1235. He claims to have based it on an account left by one Tammam, to whom Al-Ghazal recounted his adventures on his return. Al-Ghazal is known to have been a courtier at Cordova in 840, but there is good reason to regard this story as a fiction. Mr. Allen regards it as the true story of a mission to Turgesius sent as a result of the raid, but there is nothing in it to suggest Ireland or Turgesius to anyone not determined to find them in it. As for the queen, whose dalliance with Al-Ghazal takes up most of the story, it would be hard to imagine anyone less like a spae-wife.

Perhaps to impress, but certainly to incommode, the reader, Mr. Allen has inserted no less than 240 notes after the text.

RAGLAN

OCEANIA

Beiträge zur Ethnographie des Wantoat Tales, Nordost Neuguinea. By Carl A. Schmitz. *Köln Ethnologische Mitteilungen* 1, Köln (Köln Universitäts Verlag), 1960. Pp. 226, 61 photographs, 47 text figs., map

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The book under review deals with the results of field work done by the author between December, 1955, and July, 1956, in the Wantoat Valley, in the central mountainous area of the Huon peninsula. The period of field research was short, and judging from the quantity and variety of his data the author must have worked

with tireless energy. Our knowledge of the cultures of this part of New Guinea is considerably enriched by the present book, as well as by an impressive and still increasing number of other publications by the same author. In addition to giving an *ethnographische Quellenveröffentlichung* the author also has the aim of deepening our insight into the history of the area and its culture by a special presentation and interpretation of his material. In doing so he assumes that the reader knows his *Historische Probleme in Nordost-Neuguinea* (Wiesbaden, 1960), to which he repeatedly refers. The method of presentation is

obviously influenced by the historical bias of the writer. On the other hand, its descriptive, ethnographical aspect makes the book more 'functional' than would have been expected, and this will probably make it all the more valuable to students outside the German-speaking countries, who do not busy themselves much with historical problems of 'primitive' cultures. Discussion of the merits of the historical approach is considered to be outside the scope of this review.

In considering Schmitz's book as a source of cultural-anthropological information mention should first be made of the lively and interesting description of the rituals witnessed by the author. He also offers an esoteric interpretation, based on mythological evidence, of some of the rituals which appears to be totally different from the exoteric explanations given by the people. Special mention is made of the impressive ceremony of *Jangga Matana*, damming up the water (pp. 97ff.). This is done by means of a rather complicated system of tanks and bamboo aqueducts. The actual ceremony consists of a carefully prepared flood of a seemingly chaotic and destructive character. The author demonstrates that the essential part of the ritual is the uprooting and washing away of the *piok* tree by this artificial torrent: in creating men the creator god also destroyed this tree thus setting free the human beings living in it.

The work begins, as it should, with a description of material culture. In general the picture is certainly useful, though more light on relevant details, e.g. bows, arrows, and on ornamented shields, by means of drawings or photographs, would have been welcome. The demographic data on p. 50 give only a few general figures, but it would be unjust to criticize the author for this since in the short time available ethnographical field work could not possibly have been combined with the collecting and elaborating of statistical material. It is fair to ask, however, whether the observation that formerly the number of wives married to one man amounted to six and that now every man possesses on average two (p. 61) could be maintained in face of a fifty-fifty division of sexes. Probably the author is here referring to an *élite* group. His report may also be influenced by his informants having given a somewhat idealized picture of the marriage situation in the past.

In the summary at the end of the chapter on religion mention is made, among other things, of two *Hochgötter*. One of these is the god *Jawaning* who is associated with the sun. His existence has been alluded to previously, but here his name appears for the first time, as well as a description of his functions. This rather unusual way of dealing with a god who is made more or less a *deus ex machina* could probably have been avoided by provision of an index, which would have been helpful for both reader and author. In addition the intriguing remark is made that ideas and expectations concerning future salvation concentrate round this god, who has previously also been associated with a group credited with bringing new culture elements into the Wantoat Valley (p. 174).

Although students to whom historical problems in 'primitive' societies are a mere sideline may fail to be enthusiastic about the tenor of Schmitz's book, it nevertheless provides us with an amount of information which fills many gaps in our knowledge of the cultures in this part of the island. S. KOIJMAN

Kin and Totem: Group Relations of Australian Aborigines in the Port Keats District. By Johannes Falkenberg. *Bulletin no. 9, Universitets Etnografiske Museum, Oslo (U.P.) and London (Allen & Unwin), 1962. Pp. 271.*

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Price £1 15s.

The ideal norms of many Australian aboriginal cultures have been fully described; actual social behaviour is only now beginning to be analysed. Falkenberg attempts an empirically based description of clan and horde organization, totemic beliefs, and categorization by sex, apparent age, moiety and subsection among the Murinbata and their neighbours, peoples studied intermittently by W. E. H. Stanner since 1932. The intention is admirable and the book is a welcome addition to Australian ethnography, but it is only partly successful.

Falkenberg and his wife made field inquiries during six months in 1950, collecting most of their information from old men at Port Keats mission station, where many Aborigines live and work. He

gives full lists of the names of totemic sites and of the associated totemic species and categories, and the passage of a collection of objects is traced in detail along a chain of institutionalized exchange through a total of 134 links. A census shows the whereabouts of members of 15 clans and hordes. The information is sparsely, even lavishly and sometimes repetitiously, spread over the pages, though there is no index. The stage seems set for a detailed analysis of a living aboriginal community.

The analysis never appears and, more regrettably, many of the details needed are lacking. The location in time and space of the phenomena described is uneven. The census refers to 1950, when a quarter of the population lived permanently at the Mission, another quarter lived on cattle ranches, and 'a great number' of the rest worked watch-and-watch at the Mission, a fortnight at a time (a moiety organization?). Yet there are only isolated references to missionary influence, almost none to that of the Australian cattle industry, and the bulk of the book deals with traditional pre-contact customs. The institutionalized exchange described in detail also occurred in 1950, when presumably many of the participants were living near the Mission, but the order of links is explained by reference to permanent residence on horde territories. Some numerical data do not fit. Thus in Maninj horde, there were only five men and six women resident (p. 133); yet there were eight men and seven women in its exchange chain (p. 153). The horde census is of some use, but it relies on Radcliffe-Brown's model of discrete hordes, each on its own territory, now seriously challenged (L. R. Hiatt, 'Local Organization among the Australian Aborigines,' *Oceania*, Vol. XXXII (1962), pp. 267-86), and there is no indication whether the hordes were observed *in situ* or not. As Falkenberg remarks in another context, the problem of the relation between native information and actual facts is 'delicate' (p. 188), and in this instance ethnographer's model, people's model, and actual facts are not distinguished.

Radcliffe-Brown's influence is seen at many points. Thus the degree of intimacy between local clans is said to depend on the number of totems that they share (p. 111). Yet in one of the few concrete instances of activity linking clans described in the book, the institutionalized exchange, there are no links joining those two groups of clans (totemic congregations) that have the greatest number of totems in common. Some institutions (patri-moieties, marriage with MMBDD rather than MBD, sub-sections) were recently introduced into the region, and have checked certain cumulative changes (fusion of clans, increase of the sacred area of horde territory at the expense of the secular area) which had been going on previously. There is fairly good evidence for the former, but the latter seem conjectural, though Falkenberg relates them to a population decline.

The principal weakness of the book is the omission of a discussion of marriage. The book is said to describe 'group relations' in a society where most conflicts are about women (p. 141). The only comment on inter-group policy is that horde marriages must be spread among as many different clans as possible. Horde composition is said to be a topic too difficult to be dealt with in this volume and is left for a further book discussing marriage. The present book leaves inter-group relations obscure, but it is clear that Falkenberg has the facts at his disposal for a much more thorough analysis than appears here. He has taken half a step in the right direction, and the next volume should take him much farther. J. A. BARNES

Classification of Kin, Age Structure and Marriage amongst the Groote Eylandt Aborigines: A Study in Method and a Theory of Australian Kinship. By Frederick G. G. Rose, Oxford (Pergamon), 1960. Pp. xvi, 510. Price £5.

77

This book is unique in anthropological literature for the voluminousness of its data on the kinship terminology and classification system of a single Australian aboriginal tribe, the Wanindiljaugwa of Groote Eylandt, Northern Territory.

It contains 244 pages of text, another 221 pages of tables showing the kinship terms used by each of 221 aborigines to refer to other aborigines (approximately 25,000 'identifications' of between 50

and 60 per cent. of the tribe), 221 photographs of the subjects, plus 20 other photographs and various diagrams. In fact, Rose has virtually printed his highly methodical field notes and made these available for total scrutiny. No expense has been spared by his original East German publishers, and it is indeed difficult to conceive of 'Western' publishers producing such a work.

But the crucial issue is the use Rose makes of these data. When the reader discovers his addiction to theories of 'group marriage,' he might wrongly tend to dismiss the whole work as ideological fantasy. In fact, this aspect of the book is not greatly developed, and is quite marginal to the central analysis. This focuses upon the way in which the gerontocratic structure of society involves a unilateral marriage system, with a specific nominally 'preferred' cross-cousin marriage. This, the major part of the study, is quite excellently done.

Rose goes on to suggest that his findings are of much wider extensibility, and help to unravel a lot of vexed confusions in Australian kinship studies generally. The whole study is highly quantified, with only the most economical outline of the general culture and the dynamics of marriage as it is lived. Not too much reliance can be placed on the general ethnographical data, though the sketch of the clan system is roughly correct. These deficiencies do not vitiate the central analysis at all seriously.

My fundamental objection arises from the fact that—judging from my own equally intensive collection of field data on the same subject—I do not consider the Groote Eylandt system to be an integrated network of 'correct' marriages following formally prescribed patterns of 'preferred' marriage. Wanindiljaugwa marriage certainly forms a system, following sharply definable rules, but—as Rose himself shows—the formal, 'correct' rules are constantly broken. People marry the 'wrong' partners. Women changed hands in a dazzling Hollywood confusion, necessitating the constant readjustment of kinship terms to meet the new situations created. No overall, 'algebraic,' totally interlocking, single system results; rather, the linking together of innumerable separate areas of coherence. What is most important, in my view, is that the elementary family and the peripheral network of close relatives based on the unity of patrilineally linked siblings are the solid bases on which the whole system is founded. In other words, Radcliffe-Brown—pace Mr. Rose—is to this extent triumphantly vindicated in the fundamentals of his approach, though the 'integralist' assumptions of Radcliffe-Brown, Lévi-Strauss, Homans and Schneider *et al.* certainly do not apply to this kinship system at least, since it is a tissue of reconciliations of discrete 'areas of order' rather than a single absolute and perfectly integrated system. To show why will require an analysis of similar intensiveness, not a few hundred words.

Meanwhile, Rose's study is a superb attempt to create and utilize rigorous techniques and methods, and requires treating with the greatest respect. It is the work of one initially trained in an older school of anthropology who, however, used his own wits, sharpened by natural-scientific training, to construct a rigidly methodical analytical procedure. Those with the requisite intellectual stamina could work out an alternative analysis on the basis of Rose's own data: high enough praise. This work, if enriched by marriage with Hart and Pilling's analysis of the Tiwi, provides a unique body of anthropological material for which we all stand greatly in debt to Mr. Rose.

P. M. WORSLEY

Die Haustiere der Polynesier: Ein Beitrag zur Kulturgeschichte der Südsee. By Manfred Urban. *Völkerkundliche Beiträge zur Ozeanistik*, Vol. II. Göttingen, 1961. Pp. 367, 23 text figs., 4 maps. Price DM 38

With this volume in the series edited by E. Schlieser, now Professor at Hamburg University, Urban presents his doctoral thesis, which was prepared under H. Plischke and accepted by the University of Göttingen in 1960. It is based on collected data from published reports, particularly—as was to be expected in Göttingen—from the older ones of the early days of discovery.

Researches into the history of domesticated animals in this area of the world face several problems. The most serious obstacle is the almost complete lack of reliable zoological description before these

animals changed their variety in consequence of mixing with imported European stock. In the face of this situation it is quite surprising to read that a survey of the available references gives at least some weak clues.

As is well known, there are only three domesticated animals in Polynesia—the pig, the dog and the fowl. All of them must have been brought into Polynesia in an already domesticated state by men. But they are not evenly distributed. And by his critical editing of all these older references Urban certainly makes a contribution to clarifying the situation.

In the first available reports there already seems to be some evidence of two different varieties of pigs. One is relatively small, long-legged, with curved back, long skull and large tusks; the ears are short and upright; the skin is thick, and the colour mostly reported is black. It is reported from most of the islands. The other, which has a much more restricted distribution, is short-legged and much fatter. Forster and Bligh refer to it as a Chinese variety. The first type belongs definitely to the family of *Sus vittatus* and does not differ very much from the common Melanesian pigs.

Concerning the dog, the early reports do not show one common variety for Polynesia. The conclusion then is, that with the beginning of European observation there must have been different stocks of dogs present in Polynesia. It is only with the fowls that a zoological analysis has been made. And Polynesian fowls are related to one of the four wild fowls in South-East Asia. There is some argument about whether the particular ancestor is *Gallus gallus bankiva*, *Gallus gallus murghi* or *Gallus gallus gallus*. The author was not able to make any contribution to this discussion on the basis of his sources.

In a special chapter Urban confronts this evidence with the archaeological results available up to 1959 in Germany. It seems to become clearer now that all three animals already belonged to the outfit of the earliest settlers in Polynesia. In his last chapter the author mentions some of the more important hypotheses which have been brought forward, and adds some hypothetical ideas of his own. But he correctly remarks that with the meagre evidence at hand any hypothesis relies on inference from data other than domesticated animals. For the time being he therefore does not see much use in coming to far-reaching conclusions from these data.

The main value of this book is indeed the collection of available references, quoted *verbatim*. This is all the more so, since he includes all information on the economic, social and religious aspect of these animals in Polynesia which he could find in the old reports. So we have a good reference book, which may become a valuable help in evaluating archaeological results. And it is exactly for this purpose that the author has organized and presented his evidence.

CARL A. SCHMITZ

Aborigine Culture History. By Arnold R. Pilling. Detroit (Wayne State U.P.), 1962. Pp. ix, 217, 9 maps, index

In recent years many books and articles have been written by a wide range of people on the Australian Aborigines. In this book Dr. Pilling aims to draw all this information together, and so provide a basis and a stimulus for more extensive and more integrated research in the future. He has constructed a framework which clearly shows the work that has been done and also the areas where study and research are still required. To do this he has reviewed as far as possible all material published between 1954-1957, relating to the prehistory and early history of Australia, the mainland of Papua and Australian New Guinea.

After a general introduction, Pilling devotes a chapter to each of the States of Australia, the Torres Strait Islands, Papua and Australian New Guinea. For each area he reviews the relevant material under the main headings of Archaeology, Ethnology, Linguistics, Physical Anthropology, Non-Human Fauna and History. As well as a most comprehensive bibliography, which contains nearly 800 entries, there is also a list of professional and non-professional people who are actively interested in the above fields of study.

This book is a guide to information that will be most valuable to all institutions and persons, particularly students, who are interested in the study of the Australian Aborigines and their immediate neighbours.

SARA J. MEAGHER

CERAMIC STYLE IN PREHISTORIC CYPRUS¹★

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80 In attempting to analyse the formal development of an artistic style, one must first wrestle with the problem of what criteria are to be used for determining stylistic excellence. Critics customarily use their 'own judgment,' but this is perhaps inappropriate in an anthropological study. The anthropologist will need to state what the indicators of excellence are and how they change perceptibly through time. In addition, he will need to delimit the culture in which the style developed, and then explain how specific art objects are dated or placed in the historical continuum. For complex civilizations this can become a laborious enterprise: the quantity of data is immense. For non-literate and prehistoric cultures it will be a difficult enterprise: kinds of data are relatively restricted and accident has played a large part in their preservation or discovery.

It was in an attempt to compromise that I selected the ceramics of Bronze Age Cyprus as a suitable subject for this study. The complexity of the data is not overwhelming, but there is sufficient quantity to promise some significant generalizations.

Cyprus is particularly well suited as a laboratory for the study of cultural processes during prehistoric times. In the first place, it has always been a distinct culture area because of its geographical insularity; despite the fact that only for relatively short periods of its history has it not been under some form of external political domination, and also despite there being several sub-cultural regions recognizable within the island, at least from the Neolithic to the Middle Bronze Age. The characteristically Cypriot style of culture objects during the Bronze Age therefore makes it relatively simple for the archaeologist to distinguish between material traits which were autochthonous to this culture and traits from external sources which diffused to the island and subsequently developed there.

A second factor underscoring the appropriateness of Cyprus as a backdrop for historical studies of this kind is that the Cypriot Bronze Age has bequeathed us an immense quantity of ceramics representing over 50 distinguishable wares. If we can phrase our theoretical questions so as to utilize this ceramic evidence we may well be able to support archaeological dialectics with statistics. Probably no other Near Eastern culture has been represented to posterity by such a wealth of well organized data for the study of a prehistoric ceramic tradition. This paper will concentrate on patterns or configurations in the ceramic tradition, and will attempt to show some relationship between these and what can be deduced of contemporary politico-economic conditions.

The meticulous archaeological studies from which our data have mainly been drawn are the work of the Swedish

scholars Gjerstad, Sjöqvist and Åström, the Cyprus archaeologist P. Dikaios and the late James R. Stewart of Sydney University. Their findings have been concisely summarized by Stewart²; and his interpretation has in general been followed in this paper. The chronology of Bronze Age Cyprus has been developed for the most part by a detailed analysis of the stratigraphy and contents of hundreds of tombs; where possible the chronological information has been augmented by the stratigraphy at occupied sites, a few radiocarbon determinations and cross-dating with mainland civilizations through identifiable trade objects. It is important for our purposes to note that the periods into which the Bronze Age has been divided are not determined by reference to a particular ceramic style. They are true sequence dates; so that it is possible, for example, to detect when a style bridges the division between two archaeologically determined periods.

A first significant distinction in the analysis of this Bronze Age tradition (which spanned a period from roughly 2400 to 1050 B.C.) is that at any one time there were more than one ware being manufactured somewhere in the island, but only one of these was of a decorated and ornamental style. By comparison with that one the others were plain and utilitarian. In this paper we shall pay scant attention to these latter because they would seem to be less diagnostic of social conditions than the ornamental wares: in brief, such household wares were necessary, numerous, persistent, almost inevitable in any Bronze Age culture.

In almost all cases the various fabrics can be divided into several successive wares which may or may not have been produced by different kilns but were chronologically sequent and usually show no evidence of more than a few years' overlap. These wares are given successive numbers,³ and are distinguishable from each other in terms of the range of shapes and decorative motifs, the quality of the slip or polish on the surface, and the efficiency of the preparation and firing. Although it is hardly possible to quantify their aesthetic effect adequately, we can still speak meaningfully about degrees of artistic or technical excellence, basing our judgments on the apparent care taken in each stage of the preparation of a vessel.

The pattern of stylistic development is well illustrated by the earliest of these sequences, the Red Polished wares,⁴ R.P.I, beginning in Early Cypriot Bronze I with the appearance of the first metal-workers, has a relatively small range of utilitarian shapes. The light red slip is fairly firm and has a thin irregular polish which improves towards the end of the period; but only a few simple decorative devices in low relief or incision are used. The ware is superseded in E.C.II by R.P.II, still basically the same fabric but with a harder, darker and more regular

★ With a text figure

slip, a higher polish, more incised decoration than relief, and development of a wider range of shapes. The most exotic vessels are some of the fantastic shapes produced in R.P.III during E.C.III; but already the quality of the fabric is beginning to decline, and the slip has become thinner but with grittier clay than in R.P.II. As the period progresses the incised decoration becomes increasingly stereotyped. R.P.IV carries on from M.C.I down to L.C.Ia (around 1450 B.C.); but by the time when it is being made the main current of artistic talent is being expended on another style, the White Painted wares. R.P.IV is restricted to a few utilitarian shapes, is unpolished, has a friable red or brown wash and is rarely decorated at all. It is in fact one of the everyday household wares and as such has fallen beyond our purview.

During the period from the end of E.C.III to L.C.Ia the W.P.I-VI series was manufactured.⁵ This too was a decorated pottery characterized by the same kind of gradual improvement that we have seen in the Red Polished series. It reached an artistic plateau in the W.P.II and earlier W.P.III wares of M.C.II, and then became more conventionalized and degenerated during M.C.III and L.C.Ia. W.P.II, dating to M.C.I-II, was a technical advance over the W.P.I ware, and was produced in much greater variety and quantity. It has a fabric similar to that of the R.P. wares, with a fairly well polished red-brown slip and linear decoration painted on this in lustrous brown paint. W.P.III, manufactured from the end of M.C.I till the start of M.C.III, was technically again a more advanced ware. The potters achieved a thinner slip and a hard-baked fabric, and they commonly covered the whole vessel with geometric designs. Throughout most of M.C.II and M.C.III the next stage, W.P.IV, is in use. J. R. Stewart speaks of it as 'a further degeneration'.⁶ The fabric is soft and floury in consistency; it is often unslipped, and the linear decoration is applied in a more open fashion. The M.C.III period shows little innovation in ceramic art. W.P.V now appears, deriving largely from the earlier W.P.III tradition. This ware is mostly without slip, and has for decoration broad lines flanked by wavy lines and lattice panels. W.P.VI is the unattractive finale: a L.C.Ia ware, poorly fired and thinly painted. It has only a few regular shapes, and the decoration is very standardized. Like all of the other White Painted wares (except for one late variety of W.P.V), it is hand-made. An examination of the corpus of the whole White Painted series shows that the great majority of decorative motifs were first employed on W.P.II. After that there was little innovation.

From L.C.Ia to IIc (c. 1580-1230), however, another hand-made fabric was developing, White Slip I and II.⁷ This showed novel patterns of painted network and rapidly reached an artistic peak during the early years of L.C.Ia. W.S.II was painted and fired seemingly with more haste and in much greater quantity than W.S.I, and was consequently less attractive. However, from the beginning of L.C.IIa (about 1400), when W.S.II was first being manufactured, the best decorative ware was not W.S.II but the new wheel-made Levanto-Mycenaean ware, which continued in some form down to L.C.IIIa, by which time it

had become very standardized.⁸ Much if not all of this ware was imported from the Aegean area or Syria; and from 1400 B.C. onwards foreign ceramic styles, mass-produced on the fast wheel, were to dictate fashions for the Cypriot market.

In seeking to understand these successive phases in ceramic art, an essential question to ask is whether the determinants of the phases were in origin due to spontaneous forces within the island culture or whether they should be sought outside Cyprus. Although the artifactual evidence is unevenly distributed throughout the region and is often quite inadequate, it is possible to develop either of these two kinds of explanation or to pick out factors both internal and external to the culture that could have contributed jointly to this pattern phenomenon.

In the case of the change in taste that presumably accompanied the change from R.P.III to W.P.II as the fashionable ornamental ware in Cyprus at the start of M.C.I (about 1800 B.C.), both internal and external agents seem to have been active. Although the range of shapes in the White Painted series is well within the range represented during the E.C. by Red Polished and other wares, many motifs of the painted decoration are quite novel in Cyprus. These could be attributed to a resurgence in local creativity, but we can find a prototype for them in the Cappadocian Painted ware of Central Anatolia, which dates to the period 2300-1900 B.C.⁹ A number of the decorative motifs and the general colour schemes of the two types are analogous, although the ceramic shapes are not. The appearance of this new tradition in Cappadocia and of the equally novel Khabur ware in Syria¹⁰ at about the twentieth century have been tentatively linked with a slow southward expansion of culture-bearers sometimes identified as Indo-European-speakers from the Caucasus region.¹¹ In Cyprus whatever influence they may have had, either direct or indirect, appears in the light of the material remains not to have been catastrophic either politically or economically.¹² Major sites occupied during E.C. times continued to hold substantial populations for some time; burial customs followed in the established tradition; and the most drastic change in ceramic styles was the shift in fashions from R.P.III to the brilliant and vigorous geometric designs in thick lustrous red-brown paint on the W.P.II ware. Shapes, fabric and most ornamental motifs were still at first within the range of Early Cypriot traditions. Fundamentally the Cypriots were the same farming and mining peasants and small craftsmen that they had been during Early Cypriot times. The beginning of M.C.I around 1800 B.C. coincides approximately with the end of the Twelfth Dynasty in Egypt. It is a time of radical change in the distribution of power around the Eastern Mediterranean. Egyptian economic and political influence along the coastlands of Palestine and Syria is on the wane; and movements of Amorite and Hurrian peoples in the Syrian area are associated with the establishment of strong local kingdoms, the development of commercial relations with Cyprus, and undoubtedly some contacts with ceramic motifs current in Cappadocia and the Caucasus.¹³ These events seem to be reflected in the change in Cypriot styles

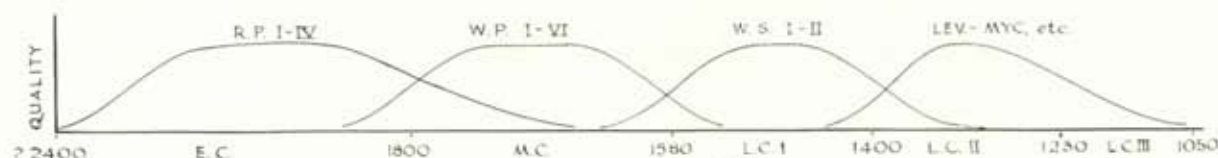


FIG. 1. CERAMIC DEVELOPMENT OF THE CYPRIOT BRONZE AGE

to something still quite recognizably Cypriot but incorporating certain foreign elements.

Then M.C.III ended abruptly in about 1580, the time when Aahmes finally ousted the Hyksos from the government of Lower Egypt. In Cyprus some east-coast tombs were now desecrated, a fortress was built on the site of a burned village and then destroyed, unprecedented mass burials took place, and a number of settlements were abandoned.¹⁴ Whether this evidence relates only to local conflicts or to a theatre of the Egyptian-Hyksos war, it was certainly marked by an almost complete break in the ceramic traditions of Cyprus. Several drab utilitarian wares, including a very decadent W.P.VI and wheel-made W.P.V, linger on during L.C.IA; but the shapes and decorative motifs of the new W.S.I are for the most part unprecedented. The establishment of emporia in Cyprus, Syria and Egypt during the sixteenth century coincides with wide adoption of the potter's wheel in Cyprus, development of a large overseas market, heavy importation from Syria, the introduction of the Cypro-Minoan script and frequent contact with traders from all over the Eastern Mediterranean. The shoddy standardization of W.S.II can be regarded as a direct result of mass production; and it also coincides with the arrival of Aegean settlers in Cyprus and the associated mass import of wheel-made Levant-Mycenaean vessels to fill the need for decorative wares.

At the end of L.C.II this Aegean influence in Cyprus was abruptly halted by a widespread invasion which amongst other things introduced the Dorians to Greece, toppled the Hittite Empire, seriously threatened the power of Ramses III and brought about the conquest of an impoverished Cyprus. After that, pottery-making was at a low ebb artistically until the radical innovations of the Cypriot Iron Age; and indeed not until mediæval times was the Cypriot potter again able to assert any great individuality in his work.

In summary, therefore, Cyprus shows a major break in cultural traditions (so far as these are reflected in the ceramics) between the Neolithic and the Early Bronze Ages, again between the Middle and Late Bronze Ages and finally during L.C.III. A more gradual or peaceful transition is apparent between the Early and the Middle Bronze Ages, however, as well as between L.C.I and II. In each of these times of cultural change there is strong evidence for external influences ultimately being responsible. Between such periods decorative ceramic styles follow a pattern of gradual development and decline which takes from one-and-a-half to five or more centuries to complete. The whole process is illustrated schematically in the diagram (fig. 1).

A major theoretical consideration arising from these events is this: should the decline in quality before the actual termination of each cycle be explained as the outcome of events external to the culture; or should it be related to internal factors such as the kinship organization of the ceramic industry, a popular desire for stylistic change or perhaps an exhaustion of creativity through devitalizing repetition within a family or school of potters? The evidence seems to favour the external explanation for the actual change in fashion, but it is difficult to see how it can be an adequate explanation for any kind of apparent foreshadowing of a politico-economic catastrophe. An answer to the problem will have to depend on careful excavations and a further refinement of the present chronology. It may well be that what appears from archaeology and history as a sudden catastrophe is in fact the culmination of what today's diplomats would call 'a steadily worsening situation.'

Very impressionistically we might suggest that the cycles described here can be fitted into a single larger cycle of Cypriot civilization embracing the entire Bronze Age. This cycle could be characterized by a fairly steady increase in the exploitation of resources and the development of relations with overseas markets, until a plateau was reached in the sixteenth to fourteenth centuries B.C., contemporary with the great Eighteenth Dynasty of Egypt; and after this there was a steady decline in the overseas copper and ceramics trade until the end of the Bronze Age around 1050. Indeed, this was the end of any real autonomy until the present day.¹⁵

The general question of why a cultural configuration may take on this kind of cyclical pattern was explored many years ago by A. L. Kroeber.¹⁶ He concluded that the patterns

cannot remain undifferentiated and attain quality. As they begin to select, early in their formation, they commit themselves to certain specializations, and exclude others. If this arouses conflict with other parts of the culture in which the pattern is forming, the selection and exclusion may be abandoned, the pattern as something well differentiated be renounced, and nothing of much cultural value eventuate. If, however, this does not happen, but the other patterns of the culture reinforce the growing one, or at least do not conflict with it, the pattern in question tends to develop cumulatively, in the direction in which it first differentiated, by a sort of momentum. Finally, either a conflict with the rest of its culture arises and puts an end to the pattern, or it explores and traverses the new opportunities lying in its selective path, until less and less of these remain, and at last none . . . the value culmination comes at the moment when the full range of possibilities within the pattern is sensed; the decline, when there remain only minor areas of terrain to be occupied.

The growth pattern described here is documented by 750 pages of detailed historical analyses in philosophy, science and the arts. Although arrived at independently it has a neat logical fit with the facts that we know for the Bronze Age ceramic tradition in Cyprus. Furthermore, such characteristics of growth configurations as pulses and pauses can be found in these ceramic cycles just as they were in so many other cultural patterns; even though archaeology presents the ceramic history as a halting and uneven development.

There is therefore *prima facie* evidence that this pattern of ceramic development in the Cypriot Bronze Age replicates a more universal cultural pattern. This statement is supported by Kroeber's comparative study. We must ask, however, to what extent the ceramic cycles replicate contemporaneous socio-economic cycles in Cyprus. The sketchy historical information presented in this paper certainly suggests that meaningful correlations exist between the ceramic cycles and other politico-economic trends. That causal connexions are also present cannot, however, be proved. We might suspect that a relatively efficient market system operating under peaceful conditions would facilitate a craftsman's exploration of the cultural patterns inherent in a ceramic tradition. At other times the general disruption of warfare could easily be reflected by a break in the ceramic tradition. But if the whole Bronze Age embraces a clear sequence of stylistic cycles, does this adumbrate cycles of a politico-economic nature?

The fact that each cycle in decorative style was able to work itself out to a stage of decline suggests that, even though this stage was correlated with some politico-economic catastrophe, the economic system of the island was 'loose' and unintegrated enough to permit the free operation of the cyclical process which Kroeber has described without there being numerous false starts or curtailed cycles (so far as we can see from the archaeological evidence).

We may suspect that a stable form of kinship at potting centres throughout the whole period was more influential in permitting this regular and repeated pattern of growth than were the vagaries of historical events and economic fluctuations effective in disrupting it. But until more evidence from residential sites in the island is forthcoming, this hypothesis will remain quite unsubstantiated.

Notes

¹ The author has benefited greatly by discussing this topic with J. Desmond Clark, Wolfram Eberhard, Robert F. Heizer, J. B. Hennessy, David G. Mandelbaum, Richard Roark, John H. Rowe and the late James R. Stewart. The chart was drawn by Miss Tina Miranda.

² J. R. Stewart, 'Cyprus,' *Handbook to the Nicholson Museum*, second edition, Sydney, 1948, pp. 115-99.

³ The abbreviations which have been used here are E.C., M.C. and L.C. for the Early, Middle and Late Cypriot Bronze periods; R.P. for the Red Polished ware series; W.P. for the White Painted series; and W.S. for the White Slip series.

⁴ See especially Stewart, *op. cit.*, pp. 127-43 and references; also P. Dikaios, 'The Excavations at Vounous-Bellapais in Cyprus, 1931-2,' *Archæologia*, Vol. LXXXVIII (1938), pp. 1-174; E. Gjerstad *et al.*, *The Swedish Cyprus Expedition: Finds and Results of the Excavations in Cyprus 1927-1931*, Stockholm, Vol. I (1934), pp. 1-466 and plates, and Vol. IV, part 1 (forthcoming); E. Gjerstad, 'Studies on Prehistoric Cyprus,' *Uppsala Universitets Årsskrift* 1926; *Filosofi, Språkvetenskap och Historiska Vetenskaper*, Uppsala, No. 1 (1926), pp. 89-131; Eleanor and James R. Stewart, 'Vounous 1937-38,' *Skrifter utgivna av svenska Institutet i Rom*, Lund, Vol. XIV (1950), *passim*.

⁵ See especially P. Åström, *The Middle Cypriot Bronze Age*, Lund, 1957, pp. 11-78, 163-99, and references; also Gjerstad, *op. cit.*, pp. 148-77; Gjerstad *et al.*, *op. cit.*, Vol. I, pp. 1-466 and plates, and Vol. IV, part 1; J. R. Stewart, *op. cit.* pp. 134-47 (somewhat outdated by Åström, *op. cit.*).

⁶ *Op. cit.*, p. 143.

⁷ See especially E. Sjöqvist, *Problems of the Late Cypriot Bronze Age*, Stockholm, 1940, pp. 43-50, 82-4 and references; also Gjerstad, *op. cit.*, pp. 194-200; Gjerstad *et al.*, *op. cit.*, Vol. I, pp. 467-575 and plates, and Vol. IV, part 1; C. F. A. Schaeffer, 'Enkomi-Alasia, nouvelles missions en Chypre, 1946-1950,' *Publications de la mission archéologique française de la mission du gouvernement de Chypre à Enkomi*, Paris, Vol. I (1950), *passim*; J. R. Stewart, *op. cit.*, pp. 151-9.

⁸ See especially Sjöqvist, *op. cit.*, pp. 65-74, 92-7 and references; also A. Furumark, *The Mycenaean Pottery: Analysis and Classification*, Stockholm, 1941, *passim*; Gjerstad, *op. cit.*, pp. 209-228; Gjerstad *et al.*, *op. cit.*, Vol. I, pp. 467-575 and plates, and Vol. IV, part 1; Schaeffer, *op. cit.*, *passim*; J. R. Stewart, *op. cit.*, pp. 158-72.

⁹ S. Lloyd, *Early Anatolia*, Baltimore, 1956, p. 66; J. Mellaart, 'Anatolian Chronology in the Early and Middle Bronze Age,' *Anatolian Studies*, Vol. VII (1957), pp. 64-7; A. D. Trendall and J. R. Stewart, 'Asia Minor,' *Handbook to the Nicholson Museum*, second edition, p. 85.

¹⁰ M. Mallowan, 'The Excavations at Chagar Bazar, and an Archaeological Survey of the Khabur Region, Second Campaign, 1936,' *Iraq*, Vol. IV (1937), pp. 102ff.; A. D. Trendall and J. R. Stewart, 'Mesopotamia,' *Handbook to the Nicholson Museum*, second edition, pp. 42f.

¹¹ J. L. Myres, 'Recent Archaeological Discoveries in Asia Minor,' *Iraq*, Vol. VI (1939), pp. 80-5; Trendall and Stewart, 'Asia Minor,' *op. cit.*, p. 86.

¹² Åström, *op. cit.*, p. 274; J. R. Stewart, *op. cit.*, pp. 140f.

¹³ Trendall and Stewart, 'Palestine and Syria,' *op. cit.*, pp. 54-6.

¹⁴ Gjerstad *et al.*, *op. cit.*, Vol. I, pp. 302ff., 416ff.; Sjöqvist, *op. cit.*, pp. 198f.; J. R. Stewart, *op. cit.*, pp. 146-8.

¹⁵ A similar pattern of cycles of creativity within a larger cycle (or epicycle) of civilization was worked out for Græco-Roman Civilization by Charles Gray; his major cycle begins within a century of the time that this Cypriot Bronze Age one ends. See C. E. Gray, 'An Analysis of Græco-Roman Development,' *Amer. Anthropol.*, Vol. LX (1958), pp. 13-31; A. L. Kroeber, 'Gray's Epicyclical Evolution,' *ibid.*, pp. 31-8.

¹⁶ Kroeber, *Configurations of Culture Growth*, Berkeley and Los Angeles, 1944; see especially pp. 762ff. Kroeber has also discussed elsewhere various culture elements which are expressed cyclically: 'Disposal of the Dead,' *Amer. Anthropol.*, Vol. XXIX (1927), pp. 308-15; (with Jane Richardson) 'Three Centuries of Women's Dress Fashions: a Quantitative Analysis,' *Anthrop. Records*, Berkeley, Vol. V (1940), pp. 111-53; *Style and Civilizations*, Ithaca, N.Y., 1957.

SOME ASPECTS OF FOLK ART IN NORTHERN RHODESIA*

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8I The generalization that crafts are dying away in Central Africa is but a half-truth. It is certainly true that the fine wood carving of the Lunda exists only in museums, and the inlaid metalwork of the Soli remains as a tradition of which no examples survive, to mention only two instances, but the creative ability of a people is not so easily suppressed and in other spheres the decorative instinct is as alive today as ever before. The notes that follow are derived from several years' intensive travelling throughout the country, but no one is more aware than I of the gaps in this paper.

Buildings. The only types of buildings to be described are non-traditional. There is no qualified indigenous architect at work at the present time, and only one in training, so it is the work of quite untrained men that will be discussed, and their work is generally to be found only in the rural areas. It is in fact an extension of traditional skills into new fields of demand. There are but two types of buildings in or near villages that are not a part of the tribal way of life, *viz.* those built for religious and commercial purposes.

The buildings of the established churches in their missionary activity have had their origins entirely in the culture of their designers who have been, almost without exception, within the Western European tradition. Even when traditional themes are incorporated into decoration, the basic pattern remains alien (fig. 1). (The only exception that



FIG. 1. INTERIOR OF MAPANZA ANGLICAN CHURCH, SOUTHERN PROVINCE

comes to mind is outside the area with which this article is concerned; I refer to the Bernard Makizi shrine in Southern Rhodesia.) It has needed the development of an indigenous church to provide the inspiration for religious building. Accounts of the Lenshina movement can be found else-

* With 12 text figures

where^{1, 2}; we are concerned here only with the building that this woman visionary has inspired. (A missionary opponent has written: 'I only have here a precious experience . . . the founder, a woman, is a *composer*! and that is why she is considered as a real High spirit.'³) Unfortunately I have been unable to visit the great church at Kasomo, near Chinsali in the Northern Province, which was built as the centre of her sect, and the description quoted here was made by another observer.⁴ There seems to be some doubt as to the size of the building, for the only two accounts available give the dimensions as 'about 250 by 45 feet inside,'⁵ and, 'a replication of Ilondola Cathedral slightly larger and longer . . . 150 ft. in length and 50 ft. in width.'⁶

'The new church. . . was purposely built slightly larger than the pro-cathedral at Ilondola. It holds about 500 persons on low wooden benches. They face a raised platform and preaching stand which constitutes an altar. Women sit on the left facing the altar and men sit on the right.

'Behind the altar the wall is decorated black, yellow and white around a green crescent and an eight-pointed red and blue star. The side walls are pink and green, with blue curtains over the small and high-placed windows. Pillars run the length of the large nave; above the pillars on a sloping wall to the peaked ceiling is a plain yellow decoration, topped by a thin blue line and white above the peak of the roof. Little windows are glazed and painted yellow.'

One characteristic of Lumpa churches (the official name of Lenshina's church, meaning 'the highest') is that they are always on the outskirts of villages. There appears to be no significant orientation. As one comes nearer to Chinsali the churches tend to be more highly decorated, even the entrance wall being painted in one building seen, though for the most part painting is restricted to the inside. Taking a particular example, a church not far from Lundazi (figs. 2, 3), it was noticed that the two side walls were differently painted; this is doubtless a reflection of the way in which (as in the orthodox mission churches) the sexes are separated in church—women to the left, men to the right. In this particular church the women's side had a predominantly red design, the men's white, an interesting example of the very frequent symbolism of these colours, the red of menstrual blood and the white of semen being frequently found in designs and ceremonies.

It may be of relevance to refer to a Catholic Mission church, close to the hub of the Lenshina movement, where a definite policy of 'Africanization' took place. The walls of the existing church were painted by old women still

loyal to their Catholic faith, yet even here the deep symbolism inherent in their upbringing broke through and some of the designs they painted had to be painted over with whitewash when the missionaries realized the implied meaning of the patterns (fig. 4).



FIG. 2. EXTERIOR OF LUMPA CHURCH NEAR CHINSALI

To conclude this section, mention can be made of another sect that has only tenuous contacts with the group of its origin, the Watchtower. This militant cult has a firm following in many urban areas, and from time to time



FIG. 3. INTERIOR OF LUMPA CHURCH NEAR CHINSALI

organizes large assemblies. On such occasions a temporary village will spring up to accommodate the delegates, and a meeting place be established with a covered platform facing the congregation.



FIG. 4. INTERIOR OF MULILANSOLO CATHOLIC CHURCH, NORTHERN PROVINCE

As a general rule, rural trading is in the hands of people of Asian origin. While for the most part the stores in which they conduct their businesses are plain rectangular-faced structures, a sizable proportion are rather more elaborately

designed with shaped pediments. African-owned stores are seldom much more than simple mud huts or at the most a sun-dried brick building with a tin roof. But in the eastern districts of the country (an area of advanced farming and correspondingly richer than other rural districts), there are a number of more substantial buildings owned by African store-keepers. Here a definite process of acculturation has taken place in adapting the Asian style to the smaller building; there seems to be a definite feeling of improved status if the store has a pediment of some kind, albeit rather a travesty of the original on which it has been based, (fig. 5).

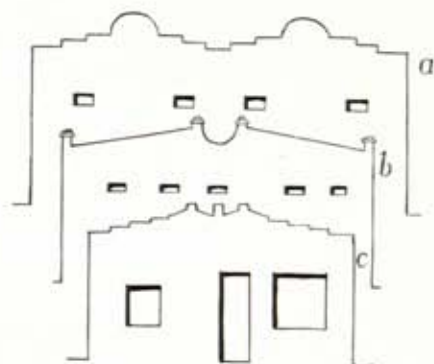


FIG. 5. FACADES OF RURAL STORES, EASTERN PROVINCE

(a, b) Asian stores; (c) African imitation

As a link between this and the following section, mention can be made of a private house, seen on the banks of the Luapula river, with several elaborate decorative features (fig. 6); this appears to be unique in style, though



FIG. 6. PRIVATE HOUSE IN LUAPULA VALLEY

it may possibly derive its inspiration from the Katanga builders across the river. This valley is remarkable for the density of its population and the fact that a high proportion of the inhabitants live in a house rather than a hut (the criteria being a rectangular building, a chimney, glass-paned windows and a panelled door). There are even one or two two-storey houses. The main reason for this advanced housing style is economic, as most of the inhabitants are connected with the lucrative trade in dry and fresh fish for the heavily urbanized Copper Belt.

Wall Paintings. This important subject has received little study in Northern Rhodesia apart from an early article by Brelsford.⁷ There are, however, a number of accounts from

neighbouring countries⁸ and it is important that full-scale research should be done into the problem. It is my firm conviction that we shall be a good deal closer to the interpretation of much of the symbolic rock art of this part of Central Africa if a comprehensive record is made of the designs on huts in different areas. For example a pattern of interlocked rectangles seen on a granary wall in the north Luangwa Valley is very similar to designs found in rock art in Southern Rhodesia⁹ (or for that matter with the paintings of such modern artists as Mondrian). For the present I shall draw attention to examples from a scattering of different areas.

Close to Abercorn, in the far north of the country, a leprosy settlement is run for the Mambwe and Lungu people. For several years there has been an annual award for the most pleasingly painted hut. Unfortunately the types of buildings occupied by the patients have recently been changed and it is unlikely that this competition will continue. Another similar settlement, with predominantly Lala patients, exists at Fiwila, some 800 kilometres to the south, and here too the huts are painted, though very differently.

It may be claimed that the impetus to decorate in these two instances was artificial, but spontaneous hut-painting still occurs over wide areas. In the northern end of the Luangwa Valley, whole villages exist where every hut is painted, and the granaries too may be decorated (figs. 7, 8). More surprisingly a Tonga village close to the main trunk road, between Mazabuka and Kafue and so likely

to be more sophisticated, recently refurbished its huts and many were repainted (figs. 9, 10). In no single instance was a name given to a design, and in only one was a reason given beyond the statement 'we do it to look nice.' Certainly some women have greater skill than others—the



FIG. 9. HUT PAINTING NEAR KAFUE

Fiwila paintings just mentioned, for example, were all the work of one woman—but normally each housewife is responsible for her own huts. The exception mentioned above refers to the painting of a granary with an abstract design in white, (fig. 8) on the grounds that this would ensure a fullness of maize at the next harvest.



FIG. 7. HUT PAINTING NEAR SITWE, NORTH LUANGWA VALLEY



FIG. 8. GRANARY PAINTING NEAR SITWE



FIG. 10. HUT PAINTING NEAR KAFUE

Schematization goes to considerable lengths; consider, for example, the patterns in fig. 12, taken from the walls of a latrine hut in the Solwezi district. The figures were explained to me as follows: (a) a man standing on a cart with solid wooden wheels, (b) someone on a small hill pointing to a plant, (c) a calabash with a bar through the top about to be hung on a support stuck through a hut wall. Such a living art is, clearly, not in decline and when urban Africans own the houses they live in, instead of existing on a very insecure tenure, doubtless we shall see as colourful townships as exist in other parts of Africa where home-ownership is the rule.

Sign-Writing. If we accept Gill's definition that 'Art is skill in making,'¹⁰ then it is certainly permissible to include signboards as examples of folk art. As has already been stated, the majority of business activities lie outside African hands, but there exist in every town, and even in rural areas, minor craftsmen who draw attention to their activities by signboards. And here we are encroaching on literary preserves, as the wording is often far from being Standard English, though it has the virtue of being understood by all who read it. By way of illustration could be cited the following spellings of the word Baker: Baka, Beka, Bakar. Again an expanding urban society will offer increasing opportunities for the local sign-writer to exercise his skill and wit (fig. 11).



FIG. 11. ROADSIDE NOTICE NEAR FORT JAMESON, EASTERN PROVINCE

Conclusion. The whole purpose of this note has been to show that there still exists in Central Africa the urge to decorate. No matter how the new social situation will emerge from its present period of rapid change, there remains little doubt that in their own way and in their own time there will come into being new forms, perhaps in permanent, portable works by specialized artists, and perhaps in less permanent but no less worthy decorations by craftsmen; all that is needed is an atmosphere of non-interference. The adulterating influence of 'airport art' will

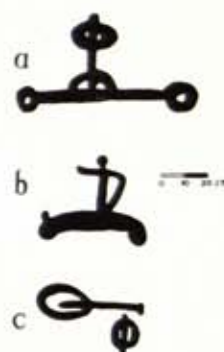


FIG. 12. WALL PAINTINGS FROM A VILLAGE IN SOLWEZI DISTRICT

be purged away and people with a highly developed art of living will be able to expand their abilities into plastic forms.

Acknowledgments

I wish to thank Mr. K. Bunton for his preparation of one of the figures, and Mr. Frank McEwen for encouraging me to write this article in the first place.

Notes

¹ R. Rotberg, 'The Lenishina movement of N. Rhodesia,' *Rhodes-Livingstone J.*, No. 29 (1961), pp. 63-78.

² Fr. L. Oger, *Lumpa Church: Study of the Lenishina Movement*, 1955-60, privately printed, n.d.

³ Fr. Ch. v. Rythoven, Letter in *African Music*, Vol. II, No. 2 (1959) p. 83.

⁴ Rotberg, *loc. cit.*

⁵ Oger, *loc. cit.*

⁶ Rotberg, *loc. cit.*

⁷ V. W. Brelsford, 'Some reflections on ... Bemba Art,' *Bantu Studies*, Vol. XI, No. 1 (1937).

⁸ See, e.g., the following: *Wall Paintings in Hima Huts*, Uganda Museum, 1958; H. Cory, *Wall Paintings by Snake Charmers in Tanganyika*, London, 1953; J. Redinha, *Paredes Pintadas da Lunda*, Lisbon, 1953; and an excellent synthetic account in H. Haselberger, 1957, 'Die Wandmalerei der Afrikanischen Neger,' *Zeits. f. Ethnol.*, Vol. LXXXII, Part 2 (1957); also more recently the same author's appraisal in *Current Anthropology*, Vol. II, No. 4, October, 1961.

⁹ E. Goodall, 'The Geometric Motif in Rock Art,' *Proc. III Pan-Afr. Cong. Prehist.*, 1957.

¹⁰ Eric Gill, *Art*, 1934, p. 15.

ROYAL ANTHROPOLOGICAL INSTITUTE PROCEEDINGS

The Rhetoric of the Ayurvedic Revival in Modern India.

By Dr. C. M. Leslie. Summary of a communication to the Institute, 10 January, 1963

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Ayurvedic medicine was given to mankind by the gods in Vedic times. It was codified in Sanskrit texts written between the second and seventh centuries. In these texts man is conceived as a conglomeration of the five elements: earth, water, fire, air and ether. The physiological expressions of these elements are chyle, blood, flesh, fat, bone, marrow, semen, and the three humours, air, bile and phlegm. Another medical system, *Unani Tibbia*, was brought to India by the spread of Islamic civilization. It derives from Arabic translations of ancient Greek medicine.

The effort to establish a modern, state-controlled and financed system of education and research in Ayurvedic and Unani medicine began about 70 years ago. The notion was to revive Indian medicine by expanding and improving educational facilities and by adopting the technology and institutional forms of modern medicine. The movement gained strength during the struggle for national independence, so that by 1947 there were 57 colleges, 51 hospitals and 3,898 dispensaries of Ayurvedic and Unani medicine in India.

Dr. Leslie outlined the history of the revival by analysing changes in the arguments and affectiveness of its rhetoric.¹ For example, one of the tenets of the revival is that indigenous

systems of medicine became stagnant as a result of foreign conquests. Many advocates of Ayurveda look back to a golden age before the introduction of Unani medicine by Islamic rulers, but all agree that the British imposed allopathic medicine on the country to the detriment of the native systems. The revival was inspired by the prospect of creating a 'national system of medicine' that would eliminate the traditional accretions of Indian medicine to rediscover a pristine wisdom that could absorb the methods and findings of modern science. Since the struggle for Independence has been won, the revival has lost the vivid context of the times in which it originated and matured. Even in Gandhi's time the image of Indian medicine as 'old-fashioned' was a disadvantage. Some practitioners overcame it by adopting western dress. An alumnus of the College of Indian Medicine in Madras, recalling two of the teachers when he was a student in 1927, observed:

They both were coming in tip-top English dress; and bewilder me. What is there in dress?—so many people say; but I am even today unable to reconcile myself. This mode of dress, integration of modern and ancient by the Ayurveda lecturers—great and well known Ayurvedists—emboldened some of us to take Western style of dress, though we used to feel and our consciousness rebel that we are for upheaval of an entirely different culture and different civilization (Rao, p. 16).

Other practitioners adopted current nationalist styles of clothing—Congress caps, shirts of khadi cloth, or coats cut like those worn by Nehru. At any rate, old-fashioned things had a certain appeal for the opposition to colonialism. If Indian medicine was old-fashioned, it was to that extent 'in style.' But now that the British are gone and the nation is launched upon a series of five-year plans, there are fewer resources to overcome the stigma of being thought old-fashioned.

Before Independence the colleges of Indian medicine attracted some students who failed to meet the entrance requirements or otherwise gain admission to modern medical schools. In recent years these students have turned to them in larger numbers, converting institutions that were intended to revitalize Ayurvedic and Unani medicine into 'backdoors' to the practice of allopathy. The colleges and universities of India are plagued by 'student indiscipline,' and the colleges of Indian medicine are not unusual in this respect. During the past decade they have experienced numerous widely publicized strikes. Their role in the structure of higher education is not as secure as that of other colleges, however, so that student indiscipline has brought greater discredit to them. The strikes have centred on demands for increased instruction in modern medicine, better-paying appointments in state health services for graduates, and privileges to engage in medical practice similar to the privileges of allopathic doctors. In 1959 and 1960, largely in response to these strikes, the colleges at Madras and at Banaras Hindu University were converted into modern medical schools. These were premier institutions of the Ayurvedic revival. Their careers seem to follow a pattern in which the successful expansion of facilities created the nucleus of an allopathic college. Pushed by the desires of students to improve their qualifications to practice modern medicine, and by factions within the staff, the programme for

integrated instruction in Indian and modern medicine was abandoned.

Since these developments particularly affected the arguments of those who would integrate Ayurvedic and modern medicine, the Shuddha, or 'pure' Ayurvedic wing of the movement was strengthened. The Shuddha position started from an orthodoxy that rejected the notion that modern science was anything but illusion and the deception of alien rulers. On the current scene, however, the Shuddha position admits the need for modern state-supported and state-regulated colleges, research institutes and all the other institutional forms of modern medical education and practice. One of the leading spokesmen for Shuddha Ayurveda has even drawn up a proposal for an Asian Health Organization on the lines of the World Health Organization.

Partly in response to pressure from advocates of Shuddha Ayurveda, the governments of Kerala, Andhra Pradesh and several other states have reduced instruction in modern medicine in their colleges of Indian medicine, and eliminated the use of allopathic therapies in Ayurvedic and Unani hospitals and clinics. Despite these reverses, the advocates of integrated research and training have maintained control of the larger and better-equipped institutions in India.

Advocates of both the Shuddha and integrated strategies for the revival of Ayurveda argue that the present difficulties of the movement are essentially sociological. The low social and economic status of colleges of Indian medicine, and the relatively poor prospects of their graduates in government service and in gaining public esteem are said to be the primary sources for what a recent government report calls 'the deadlock in the development of indigenous systems of medicine' (Udapa, p. 173). To the cultural anthropologist, however, the revival raises problems in the history of ideas: Can Ayurvedic theories support the institutional forms of modern medicine? As conceptual systems, can they assimilate the findings and ways of thought of modern research and education?

However these questions are to be answered, few advocates of Ayurveda consider withdrawal into an insular orthodoxy as an alternative to going forward with the revival. By 1962 there were 98 Ayurvedic and Unani colleges in India. The second five-year plan set aside 62,100,000 rupees for the development of indigenous medicine, and the third plan provides 98,000,000 rupees for this purpose.

Note

¹ This lecture was based upon a survey of Ayurvedic and Unani institutions, which I carried out in India and Ceylon during the summer of 1962 as a Fellow of the International Center for Medical Research and Training, School of Hygiene and Public Health, Johns Hopkins University.

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SHORTER NOTES

Senoi Temiar: Dermatoglyphic Data. By David R. Hughes, Duckworth Laboratory of Physical Anthropology, Faculty of Archaeology and Anthropology, Cambridge. With a table

83

The dermatoglyphic data which form the material for this communication were collected at my request by Mr. O. S. Ooi of Trinity College, Cambridge, whilst he was on vacation in Malaya in 1961.

The finger impressions were obtained from a sample of 29 unrelated adult male Senoi Temiar at Pasir Riang and Gemalah, Kelantan, Federation of Malaya. As the data were collected under adverse conditions, it proved possible only to classify the prints into loops, whorls and arches (Cummins and Midlo, 1943). The resultant frequencies, expressed as percentages, are as follows:

(A) Arches 1.7 (L) Loops 45.2 (W) Whorls 53.1

The opportunity was taken to compare these frequencies and two indices derived from them (100 A/W, or Dankmeijer's index, and 100 W/L, or Furuhashi's index) with the corresponding ones for a number of South-East Asian and Asian population samples. The type frequencies, and the values for the Dankmeijer index, were taken from Weninger (1961), and the values for the Furuhashi index were calculated by me from these data (see Table I).

TABLE I. COMPARATIVE DATA RELATING TO FINGERPRINT TYPE FREQUENCIES AMONGST SOUTH-EAST ASIAN AND ASIAN MALE POPULATION SAMPLES

Population	n*	Frequency (per cent)			Indices	
		Whorls	Loops	Arches	100A/W	100W/L
Javanese ¹	72	37.2	59.9	2.9	7.8	62.1
Javanese ²	1000	35.9	61.3	2.7	7.5	58.6
Javanese ³	1815	37.7	60.2	2.1	5.6	62.6
Indonesians ⁴	?	47.0	52.0	1.0	2.1	90.4
Dayak ⁵	?	45.0	53.5	1.5	3.3	84.1
Nias Islanders ⁶	1298	34.7	62.9	2.4	6.9	55.2
Menangkabau ⁷	569	45.1	53.2	1.7	3.8	84.8
Toba Batak ⁸	500	43.0	55.3	1.6	3.7	77.8
Sasak ⁹	615	47.2	51.4	1.3	2.8	91.8
Balinese ¹⁰	849	47.7	50.6	1.6	3.4	94.3
Igorot ¹¹	14	37.1	61.4	1.4	3.8	60.4
Mangayan ¹²	26	91.4	7.8	0.8	0.9	171.8
Acta ¹³	117	55.1	44.2	0.7	1.3	124.7
Semang ¹⁴	33	60.2	39.8	—	—	151.3
Vietnamese ¹⁵	45	50.6	47.6	1.8	3.6	106.3
Chinese ¹⁶	300	50.8	47.8	1.4	2.8	106.3
Japanese ¹⁷	300	45.9	52.2	1.9	4.1	87.9
Senoi Temiar ¹⁸	29	53.1	45.2	1.7	3.2	117.5

* n = sample size. ¹ Java (Weninger, 1961); ² Java (Dankmeijer, 1938); ³ Java (Dankmeijer and Renes, 1939; Renes, 1941); ⁴ Indonesia, various (Grützner, 1927); ⁵ East Borneo (Grützner, 1927); ⁶ Nias Is., off N.-E. Sumatra (Kleiweg de Zwaan, 1914); ⁷ Sumatra (Kleiweg de Zwaan, 1914); ⁸ Sumatra (Maasland, 1940); ⁹ Lombok, near Bali (Kleiweg de Zwaan, 1942); ¹⁰ Bali (Kleiweg de Zwaan, 1942); ¹¹ Luzon (Weninger, 1952); ¹² Mindoro (Weninger, 1952); ¹³ Luzon (Weninger, 1952); ¹⁴ Malaya (Weninger, 1952); ¹⁵ Tonkin, N. Vietnam (Jungwirth, 1959); ¹⁶ China (Kubo, 1918; Leschi, 1950); ¹⁷ Japan (Kubo, 1918; Leschi, 1950); ¹⁸ Malaya (Hughes, present study). Full references listed in Weninger, 1961, pp. 365-366.

If the values obtained for the indices 100 A/W and 100 W/L are plotted, with Dankmeijer's index as abscissa and Furuhashi's index as ordinate, it will be seen that the Senoi Temiar sample falls on the edge of a cluster of ten other population samples. The Javanese and Nias Islanders, in contrast, having a

high 100A/W index and a low 100W/L index, lie in comparative isolation in one direction away from the cluster; the Acta, Mangayan and Semang, however, with a low 100A/W index and a high 100W/L index, are also isolated from this main cluster, but lie in the opposite direction.

In view of the small size of the Senoi Temiar samples, conclusions on a basis of this point diagram or from the data in Table I must remain largely conjectural until further information is forthcoming. It is significant, however, that both the Malayan Semang sample and the Javanese samples lie some distance away from the Senoi Temiar sample, and that the last-named is closer to groups such as the Igorot, Toba Batak and Dayak samples. This would appear to confirm the usual distinctions that can be made between the Semang (Negritos) and the Senoi Temiar on the one hand, and the Javanese (Deutero-Malaysian) and the Senoi Temiar on the other hand. The Senoi are a notoriously heterogeneous Malayan group (Noone, 1936; Williams-Hunt, 1952) but these dermatoglyphic data can be cautiously interpreted as suggesting affinities with Proto-Malaysians as exemplified in the present study by the Igorot, Toba Batak and Dayak.

I wish to express my gratitude to Mr. O. S. Ooi for the collection of data, and my indebtedness for comparative data to the article by Dr. Margarete Weninger of the Anthropological Institute of the University of Vienna.

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Proprietary Rights to Fruit on Trees Growing on Residential Property. By Dr. Homer Aschmann, Associate Professor of Geography, University of California, Riverside, Calif.

84

The planting of fruit trees on urban and suburban residential lots in Southern California is a common practice. In many instances the justification for this effort must be aesthetic or philanthropic. The owner will pick little or no ripe fruit regardless of climatic or soil conditions. Small to middle-sized boys will strip the trees long before the fruit ripens.

If, however, the planter is judicious in his selection of the species to be planted he may fare better as to harvest. Climatic requirements and optima for the various trees are essentially irrelevant except where conditions are completely beyond the tolerance of a desired species. The child culture will allow rights of private ownership for some kinds of fruit. Others are public property. The owner of a loquat tree (*Eriobotrya japonica*) need not worry about his crop. The neighbourhood boys recognize it as public property and never permit the fruit to ripen. An orange or an avocado tree is much safer. Only individuals so hardened as to be willing to undertake actual theft will molest his fruit. Other species enjoy intermediate security.

The following notes are based on personal experience, and afford an insight into the fugitive pattern of a child culture which

may persist almost indefinitely but never reach the adult level except in the form of vague memories. For comparative purposes it may be well to identify the source in space and time.

My observations were made just within the eastern city limits of Los Angeles and in the adjacent Belvedere Township during the early nineteen-thirties. Most of the residents of the district were relatively poor but not impoverished. A high proportion of the modest houses were and are owner-occupied. Almost all were built on separate lots. In ethnic composition there was a mixture of small neighbourhoods, a few blocks in extent. Some were occupied by a mixed White American group. Others were definitely Mexican. Perhaps the establishments in the latter areas were consistently more humble. The practice of planting fruit trees in both front and back yards was nearly universal throughout the district. In the early nineteen-thirties most of the houses were between 10 and 20 years old so that the many fruit trees planted shortly after construction were close to the optimum bearing age.

Though during the Second World War this district may have produced a little more than its share of juvenile gang warfare, it could not have been considered a particular trouble spot in the thirties. The youths were scarcely pampered and were almost without money, but, with individual exceptions, they were energetic kids who knew their way around but were happy to act within socially prescribed bounds. Stripping certain of your neighbours' trees of fruit was within these bounds, though it should be done surreptitiously. The owner could chase you away if you were observed, but had no right to claim damages for the fruit taken. Most curiously, the owners' rights varied with the kind of fruit.

The loquat was the most peculiarly public tree. Children of the most respectable families would pick the fruit of any tree of this species they could get their hands on, even those of an immediate neighbour. Since they competed with one another, early picking was essential and the fruit seldom matured beyond a faint tinge of yellow. A fully ripe fruit could be found only in the store. The deciduous fruits, plums, apricots, peaches and apples, were also subject to raiding, and generally while in a fairly green state. If a peach were ever to ripen it would be fairly safe since it was obviously valuable property, the taking of which would be theft. Figs might be taken, but only in the brief time between ripening and picking by the owner. Green, they are protected by being completely inedible. Oranges and avocados were safely the owner's property.

People being what they are, not all owners approved of this appropriation of their property. There was little that could be done about it. One couldn't watch his trees constantly, and for the public species moral suasion was ineffective. Attempts at vigorous punitive action would arouse the whole neighbourhood of boys who could carry out far more damaging operations against the property of a disliked neighbour. It should be emphasized that the fruit was not taken from commercial plantings. If neighbourhood boys had not taken it, it would have been eaten by the owner's family or given away, not sold.

Generally boys between the ages of eight and 14 picked the fruit. Girls in the same age bracket sometimes participated in the activity as well, though they generally only took from trees in front yards. The toughest kid in the neighbourhood might for a brief time protect his own family's fruit trees by physical threats to other boys. But this capacity was soon lost by disinterest and then the inability to undertake the bemeaning enterprise of beating up much smaller children.

Because of the risk of running into someone your own age who might protect his own trees or those of his neighbours as his private poaching preserve, there were some physical risk in picking fruit outside your immediate home district where you

knew everyone. Hence when a neighbourhood was without boys in the critical age bracket, the owners might enjoy their own fruit. Of course, this would not apply to an extreme case such as a loquat tree in the front yard. As the fruit started to turn colour any boy passing by would know that it was not appreciated and appropriate it. One is led to inquire as to the factors which determined the degree to which individual property rights were socially abrogated for particular kinds of fruit. Most of them are apparent in the contrast between the loquat, the most public fruit, and the orange the most securely private one.

While the prices of the two fruits per pound in a store are roughly the same, commercially grown oranges constitute a major item in the economy of Southern California, and loquats make an almost infinitesimal contribution to the agricultural wealth of the region. Everyone who has driven through the countryside has seen signs offering rewards for information leading to the arrest and conviction of anyone stealing oranges. They are universally recognized as a valuable and salable commodity. Because of its poor shipping characteristics and its unfamiliarity in the market place, the loquat is not ordinarily thought of as an article of commerce; it would be difficult to establish a bill against a child's parents for what he had taken. Furthermore loquats could be picked and consumed before they were ripe enough to have value to anyone other than the small boys who did it. A green orange could not be handled even by those boys, and once it had ripened enough for them it had real value.

While the deciduous fruits, plums of several varieties, apricots and peaches (apple trees seldom bear fruit in Southern California) are of importance to the economy of parts of California, this is not true in the immediate vicinity of Los Angeles. Again there is the aspect of taking something without recognized economic value, supported by the fact that these fruits could be eaten green. Avocados were protected as a fruit of economic worth in the region, by their large size and consequent unit value, and also by the fact that they were not suitable for eating on the run. Taking fruit was for sport not nutrition, and taking home something of value would have been morally reprehensible.

The placement of the trees in front yards or fenced backyards had a slight effect on their security. The loquat's selection as an attractive front yard ornamental undoubtedly contributed to its vulnerability, particularly to boys wandering outside their immediate neighbourhoods. The owner's decision to plant there could be interpreted by any boy who worried about such things as a deliberate invitation. On the other hand the sport of climbing fences into the backyards where figs and deciduous trees were likely to be found was often an end in itself and justified attempts to consume the greenest and sourest fruit.

The preceding remarks are strictly historical, referring to a specific place and time. Such contemporary observations as I can now make, and conversations with adults in various age brackets suggest that a very similar pattern of fruit appropriation has been widespread in Southern California and of considerable duration. A sample reference from a published source is the following remarks by Mary Frances Kennedy Fisher in a footnote to her translation of Brillat-Savarin's *Physiology of Taste*:²

Medlars were called loquats, from the Japanese,³ when I was a child in Southern California, and they were the only things I ever stole. They always seemed to grow outside the tight-lipped houses of very cross old women who would peek at us marauders and shrill at us. There are very few of the tall, dark green trees left, and most people have never tasted the beautiful voluptuous bruised fruits, nor seen the satin brown seeds, so fine to hold. The last time I saw loquats was in 1947, in the lobby of the Palace Hotel in San Francisco, many of them almost dead ripe, on a long branch which was part of a

decoration in the flower shop there. My early experience as a thieving gourmande warned me that they would be at their peak of decay in about six hours.

Her recollection of loquat-stealing seems to date from about 1920 and also comes from Los Angeles; it differs from mine in that she was able to find ripe fruits to appropriate. With variations a similar pattern of fruit-taking can be recognized elsewhere in the United States.

The activities reported obviously are and were illegal, but at the same time had full social acceptance. A person who attempted to gain the protection that the law afforded him could scarcely continue to live in the neighbourhood. A crucial but often ignored question for any society, and particularly our own, is whether formal laws and their enforcement constitute an aid or a hindrance to the maintenance of satisfactory relations within social groups. These notes would seem to support the thesis that such laws are a hindrance. Memory of taking a neighbour's fruit seems to make a noteworthy contribution to one's sense of belonging and attachment to a home neighbourhood, an important asset in the generally rootless land of Southern California. This is a remarkable return in comparison with the value of the fruit invested.

Unfortunately effective field work on the problem is possible only at one, and a very early, stage of an individual's career. I

would be interested in specific recollections on the topic from other periods and localities. In particular, the development of this pattern in the vast and otherwise nondescript residential subdivisions created in the last decade and a half might have some interesting sociological implications.

Notes

¹ The failure of the loquat to establish itself as a commercial fruit in the distant but climatically similar Balearic Islands is noted in a recently published short sketch. Frances Weismiller, 'The Misbro Tree,' *The Atlantic*, Vol. CXCIV (March, 1955), pp. 57-60. On Majorca the rights to disposal of the fruit would seem to be similarly uncertain, with the first comer getting away with what he takes. This particular story turns on the right of a pregnant woman to any food she craves, and, of course, her right to loquats was established as soon as she made it known.

² Jean Anthelme Brillat-Savarin, *The Physiology of Taste* (1825), M. F. K. Fisher translation, The Heritage Press, New York, 1949, translator's footnote 31, p. 457.

³ The word loquat actually comes from the Cantonese dialect of Chinese, and it is likely that Brillat-Savarin, like Shakespeare (*As You Like It*, III, ii), meant *Mespilus germanica* when he said medlar. The medlar looks quite a bit like the loquat and both belong to the Rosaceae, but the former is much harder and is better known in all but the southernmost parts of Europe.

CORRESPONDENCE

Conus-Shell Ornaments in Africa. Cf. MAN, 1962, 262, 263

85

SIR,—With reference to my recent letter, it may be of interest to report these additional facts: (a) A radiocarbon date for the base of the midden deposit which contained the *Conus* is A.D. 542 ± 120 (University of Rhodesia and Nyasaland, Salisbury, S.R.). (b) A report by Dr. Barnard of the South African Museum, Cape Town, identifies the shell as almost certainly *Conus hebraeus* Linn. It occurs along the coast of eastern Africa as far south as Natal. It does not occur on the west coast. (c) The human remains are of a young person. The skull suggests a 'boskopoid' shape (J. C. Shee, M.D.).

In addition I should like to add a few words on the archaeological evidence. The midden deposit averaged three feet in thickness and was sealed by granite fragments themselves covered by 18 inches of recent midden (eighteenth-nineteenth centuries). The burial probably belongs to the end of the early Iron Age occupation represented by the stamp-decorated pottery. The *Conus* can almost certainly be regarded as part of the burial. There is evidence indicating that the early midden accumulated fairly rapidly (pieces of the same vessel were recovered from different levels), therefore the burial is perhaps within the dating range mentioned above. Evidence of smelting of iron and copper was noted from the beginning to the end of the Iron Age occupation. Glass beads resembling some of the Zimbabwe bedrock series were also present in the early midden.

K. R. ROBINSON

Chief Inspector, Historical Monuments Commission
Bulawayo, Southern Rhodesia

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SIR,—With reference to recent correspondence in MAN on the subject of conus shells in Southern Africa, may I record two finds of these shells in Iron Age contexts in Northern Rhodesia?

Two conus shells were found with the burial of a young girl at the Isamu Pati mound in the Kalomo area of the Southern Province. This burial can be correlated stratigraphically with the later stages of the Kalomo Culture, and with a hut floor, radiocarbon-dated to A.D. 1250 ± 50 (UCLA-175). These two shells and sporadic finds of glass beads show that the Kalomo culture people, who inhabited

part of the Batoka plateau of Northern Rhodesia from c. A.D. 900 to 1400 (Fagan, 1962), had some trading contacts with the Zambezi valley to the east. A cowrie shell was found in the basal level of another Kalomo culture mound, Kalundu, showing that sea shells were traded from the earliest stage of the culture.

A string of conus shells was also found around the neck of the richest gold-decorated burial at the Ingombe Ilede Mound, Lusitu (Chaplin, 1962; Fagan, 1962). One of the shells had a gold back plate. A recent radiocarbon date for the lower levels of the Ingombe Ilede came out at A.D. 1452 ± 87 (R-908), which suggests that the gold burials associated with the upper horizons may date to c. A.D. 1600 to 1700.

It is clear from Mr. Robinson's finds as well as our own that the conus shell was a valued possession in southern Africa long before the Portuguese noted its value in the sixteenth century. It was probably used as a trade object from the early centuries of the first millennium A.D.

In Cumison's recent valuable translation of Gamito's diary (Cumison, 1960), Kazembe is shown wearing a necklace of conus shells.

BRIAN M. FAGAN

Rhodes-Livingstone Museum, Northern Rhodesia

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The Determinants of Differential Cross-Cousin Marriage.

87

Cf. MAN, 1962, 47, 179, 238; 1963, 11
SIR,—Dr. Coult asked me to study his paper published in the Winter issue (1962) of *Southwestern Journal of Anthropology* and to offer comment. I have done so; my comment is as before. Dr. Coult is completely confused as to the nature of the ethnographical phenomena he is seeking to explain. The most

critical of these confusions—for the purposes of the present correspondence—occurs at p. 323 of Dr. Coult's paper. Dr. Coult is there concerned to show how an argument relating to the jural authority of a true mother's brother over a true sister's son could somehow be twisted round to explain a prescriptive rule for marriage with a 'classificatory mother's brother's daughter.' He does this by dragging in the notion of corporate group representation.

'He [the true mother's brother] may not have jural authority himself but as a representative of the corporate group, he is the surrogate of the group's control to the wife seeker and the latter's group. Ego need deal only with his own mother's brother and not with his classificatory mother's brothers.'

It is quite clear that Dr. Coult has not understood how things really are in such societies. A Kachin for example must marry a *nam*, that is a girl junior to Ego who is a member of any *mayu* (wife-giving) lineage with respect to Ego. There will ordinarily be

at least half-a-dozen such lineages and there is no statistical likelihood that the chosen bride will be of the same lineage or even of the same clan as Ego's own mother. Dr. Coult's argument is therefore wholly fallacious.

EDMUND R. LEACH

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'Social Anthropology'

88

SIR,—The first use of the expression 'Social Anthropology' is sometimes attributed to Sir James Frazer. However, I think that it may have been used earlier, for Sir Edward Tylor in his review of S. R. Steinmetz's *Ethnologische Studien zur ersten Entwicklung der Strafe* in *The Academy*, Saturday, 18 January, 1896, uses the expression as though it were already well established. Perhaps readers of MAN can cite earlier uses of it.

E. E. EVANS-PRITCHARD

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REVIEWS

GENERAL

Culture and Personality. By Anthony F. C. Wallace. New York (Random House), 1961. Pp. 213. Price \$1.95

89

Dr. Wallace defines 'culture and personality' as a sub-discipline of anthropology, but essential to that major science for, without it, 'culturology can only blunder into one of those sterile waste lands where all closed-system theories eventually end their days.' It is his express purpose to present the reader with the 'logical and methodological foundations' of this science rather than provide a summary of the empirical studies. His exposition is clear and precise and he is well able to handle, order and take account of the interdependence of a great many variable factors. Most important, Dr. Wallace commits himself to certain views and hypotheses. By doing this he provokes thought, perhaps controversy. This is likely to stimulate development in this most complex scientific field.

In the introductory essay Dr. Wallace outlines his fundamental hypotheses and schemas, while in the chapters that follow he works out their application to more specific problems, such as the interdependence of the evolution of culture and of the brain, the cultural distribution of personality characteristics, the psychology of cultural change and the relationship between culture and mental health. The exposition of his own views is in most cases amplified by reference to the general literature.

The author's interests centre on the study of the processes and dynamics of the psycho-social systems rather than on their structures. In fact, he is suspicious of ontological definitions which, he thinks, are liable to postulate, explicitly or implicitly, Platonic essences. He is also extremely alive to the effect of the scientist's model upon the data that he obtains: 'Only as the scientist comes to recognize and to take account of the limitations imposed on his vision by the concepts he chooses to consider important, and by the assumptions that he makes about the logic of inferences and the technique of observation, can he achieve the flexibility of approach required to solve new problems.'

Thus, he suggests, 'culture' and 'personality' should be regarded as names for 'indefinitely large numbers of different empirical operations' which depend on both the observer and the situation of his observation. The same category of overt behaviour may be described in terms of either culture or personality, depending on the number of persons observed, the number of kinds of behaviour observed and the level of abstraction achieved. What is, therefore, important is the operational relationship within any given investigation.

One of the key concepts in his schema is the concept of the 'mazeway,' which, he says, is to the individual what culture is to the group. He describes the mazeway as follows. 'Every human brain contains, at a given point in time, as a product of his experi-

ence, a unique mental image of a complex system of objects, dynamically interrelated, which includes the body in which the brain is housed, various other surrounding things and sometimes the brain itself. This complex mental image is the mazeway. It is used by the holder as a true and more or less complete representation of the operational characteristics of a "real" world.' This mazeway contains three principal components: (a) a person's value system; (b) a person's perception of himself, of other people and of other things; (c) a person's conception of the techniques that will produce desired states, experiences and goals.

The mazeway, constituting an 'integrated system of perceptual assemblages,' is obviously, as Wallace himself suggests, related to the typologist's 'life-space,' or to Tolman's 'cognitive map.' Considering the importance of the mazeway concept in his schema, it is somewhat frustrating that Wallace has not devoted a whole chapter to it. For in such a chapter he might have shown how he views the interrelationship between the various intra-personal forces such as motivation and cognition. Rightly or wrongly, the book conveys the impression that the author tends to underemphasize affect and motivation, perhaps in order to counteract what he considers the excessive influence of psycho-analytic theories on culture-and-personality studies. He tries not to fall victim to the opposite danger of stressing the cognitive factors; he insists, for instance, that socio-cultural organizations are not dependent upon a community of motives or cognitions, nor on insight into one's own or other people's motivational or cognitive structures: in consequence, so he suggests, individuals can produce a socio-cultural system which is beyond their own comprehension.

The principle which he holds responsible for the coherence of social institutions appears to correspond to the Gestalt principle of Congruence, to Jung's Archetype of Order or to what the author himself later, when discussing 'innovation,' describes as an instinct or a principle of Maximal Organization. I, personally, can accept as valid such a Gestalt principle as ultimate cause. But in order to observe the way it works itself out in everyday situations one must surely look to the various psychological processes—instincts, affects and cognitions. It is here that Wallace betrays a rationalistic bias, for he claims that it is perceptions, recognition and learning of partial equivalence structures which solder together the socio-cultural organizations. The 'missing' chapter on the mazeway might have clarified for the reader—and perhaps even for the author—what appears at present to be an implicit assumption.

Another guiding idea is Wallace's postulate that there are two antagonistic conceptions regarding the relationship between culture and personality. The first he describes as the 'replication of uniformity,' a theory which stresses the homogeneity of groups, so that the individuals in them are thought to be merely like beads

strung on a thread. Partisans of this view are alive to the tragedy of 'conflict' in cultures with internal contradictions. The second, the opposing theory, views society as an organization of diversity, which exists in a constant state of oscillation between ecstasies of revitalization and agonies of decline. Here, as is the case with existentialists, tragedy is seen to lie in the experience of loneliness. Wallace is clearly a strong supporter of this second view of culture and personality; he seems to sense danger in the acceptance of mutuality and togetherness, perhaps because these tend to be confused, either in fact or in one's perception of them, with a loss of identity. Consequently he emphasizes the existence of 'uniquely private cognitive worlds' and of the 'silent trade' that goes on between persons who never achieve communality; he conceives of 'implicit contract' as the basis of culture, and sees the world as a lonely place in which mutual identification is merely a wistful dream. He is, of course, perfectly right when he insists that the measure of individual survival does not lie in conformity but in complementarity. But this, it seems to me, is really a goal conjoined to the process of differentiation, whether of culture or of person. Would it perhaps not be more true to postulate a state of oscillation between tendencies towards homogeneity and tendencies towards heterogeneity? For these two tendencies co-exist both in the group and in the individual, the one making for cohesion and stability, the other for change, growth and differentiation. In the co-existence of these two tendencies lie the roots of some of the most basic conflicts.

It is moreover important that one should keep in mind the difference between homogeneity as a personal and social fact and homogeneity as a goal desired by some of the internal needs of man.

It is perhaps Wallace's eagerness to keep alive a sense of man's separateness, individuality and uniqueness which has tempted him to underplay affectivity and emotional communication in the making and maintaining of cultural institutions. I also suspect that he has yielded to seduction by what he regards as the 'hard' sciences, such as biochemistry, physiology, genetics, etc.

I have taken up only two points in Dr. Wallace's conceptual schema. There are many others that, if time allowed, one would like to discuss more fully.

This book is compressed. A longer version would have given the author a chance to describe his facts not only from the conceptual but also from the phenomenological point of view. But as it stands it is a guide for the student of culture and personality and should help him to remain alert to the multiple interdependence of the innumerable factors that he has to deal with in his chosen field.

ROSEMARY GORDON

Primitive Government. By Lucy Mair. Harmondsworth (Penguin), 1962. Pp. 288. Price 4s. 6d.

90 Many anthropologists feel themselves either inadequate or superior to the task of 'popularization' of their subject. In this book Dr. Mair has had the courage to attempt it, and to ignore appeals to the interests of her professional colleagues. For this she merits respect. The book should therefore be reviewed principally as an essay in popularization, for both the general reader and the first-year student.

Dr. Mair starts with a clear discussion of certain of the basic concepts of political theory as it affects 'primitive' societies: her accounts of the terms primitive, government, politics, state, tribe, nation and law are useful and common-sense definitions. She spends the remainder of the book on straightforward ethnographical accounts of certain types of political system. Unfortunately she takes the systems of government of certain selected East African societies only, and ignores those from elsewhere in the world: the book can hardly be said to be on 'primitive government' as such. In East Africa, also, she omits such well-known societies as the Nyakyusa and Somali, restricting herself mainly to the Nilotes and the Ganda. In this context, a small point perhaps, I must take exception to her remark (pp. 36 f.) that all East African societies reckon descent in the patrilineal line. What about the Kaguru, Makonde, Luguru, Yao and Shirazi, to mention only some non-patrilineal peoples on which there are published data?

The account of these political systems are presented in a simple logical sequence: those societies with 'minimal government'; those with 'diffused government'; and various states. There is a final section on 'primitive government and modern times.' All the material except for some of Dr. Mair's own data on the Ganda and some from unpublished theses is taken from available books and papers. Although perhaps dull reading for another anthropologist, it would appear perfectly justified for the general reader.

The author presents an interesting discussion of what she calls 'the expansion of government,' the means by which centralized political authority comes into being and is perpetuated. Her definition of the 'state' is interesting, although narrow; her consideration of clientage is valuable. I regret that Dr. Mair does not elaborate these points and consider them in the light of wider theory; for example, there is no mention of Weber, whose work is surely relevant, nor of recent writers in this field such as Smith, Barnes, Barth, Gluckman, and Colson. However, it is only fair to add that a reviewer should accept an author's intentions as given and not carp in this respect.

In brief, this book may not appeal to Dr. Mair's professional colleagues; but presumably it is not meant to do so. It is a great pity that the publisher has chosen so misleading a title for the general reader. The reader interested in East Africa may well miss the book altogether, and one interested in primitive government in general may well feel dissatisfied at the narrow range of societies selected. The book has useful summaries of our knowledge of the traditional societies of parts of East Africa; there is little on the present-day situation in that area. This is a pity, as Dr. Mair has much more to say on that subject, as an anthropologist, than most of the self-styled experts who write so prolifically and think so superficially about it.

It is also a pity that the publishers thought that the cover of the book should be adorned with a photograph of a Benin mask. Did they not trouble to look at the text?

JOHN MIDDLETON

Society: Problems and Methods of Study. Edited by A. T. Welford, Michael Argyle, D. V. Glass and J. N. Morris. London (Routledge & Kegan Paul), 1962. Pp. 586. Price £2 10s.

91 Presumably, though there is no statement to this effect, the book now under review is intended to take the place of *The Study of Society: Methods and Problems*, which was first issued by the same publishers in 1939 and was reviewed by Dr. John Layard in MAN, 1941, 9. Every serious and competent person who is interested in these fields of study knows well that the last 20 years have seen an enormous increase of activity in research upon all sorts of social problems and would be likely to agree that the time is ripe for a new comprehensive review. Nevertheless if this book is to supersede the earlier one, there are one or two matters for regret. The chief of these is that Dr. E. J. Lindgren's masterly essay on 'The Collection and Analysis of Folk Lore' will now run the risk of disappearing into the respectable obscurity of the library shelf. More generally the new book carries very little about social anthropology. Indeed the only indexed reference is to a statement in an article on 'The Sociology of Industry,' by Tom Burns, asserting that 'the psychological holism of the psycho-analytic school bears a distinct resemblance to the sociological holism of social anthropology, as developed by Malinowski and Radcliffe-Brown.' As this statement is left without adequate comment there is little gain for the uninstructed reader.

However, the book is a solid and serious contribution to a large number of questions of current social importance. It has two main parts, the first on 'Approaches and Methods of Study,' and the second on 'Problems and Applications.' To these two parts 35 authors contribute their essays, so that in a brief review it is impossible to do justice to all, or, indeed, to any of these. There is a mass of mostly well founded information backed by many—perhaps too many—references which the beginner in search of more knowledge may consult. On the whole it seems fair to say that the specifically psychological discussions are more pointed and decisive than the sociological ones, but that may be inevitable at the

present time. It is noticeable however that most of the psychologists make considerable use of general beliefs and assertions which are drawn from social observations rather than demonstrated from social experiments. This could well be unavoidable now, and may so continue for a long time.

The book deserves and is likely to get a wide welcome. Possibly social anthropologists may be stimulated to try something of the same sort along their own lines.

F. C. BARTLETT

Ideas on Human Evolution. Edited by William Howells. Cambridge, Mass. (Harvard U.P.), 1962. Pp. x, 555, 138 text figs.

92

The extensive attempts at re-editing *Genesis*, 1, 2, that have been in progress for over a century have made a collection of essays on evolution like this one the counterpart, in many ways, of a volume of sermons by illustrious eighteenth-century divines; nor are the arguments and presentations very dissimilar. Dr. Howells has brought together 28 contributions to the debate upon our ancestry, all of which have been published in various reputable journals, and has done us good service thereby. The authors are too many for all to be named, the topics equally varied. This survey of present knowledge and speculation ranges from a quite philosophical appraisal of methods and the present status of theory, through detailed considerations of such matters as anthropoid dentition to that aspect of modern heraldry connoted by the attempts to reconstruct our family tree.

The styles are equally diverse. You have the exuberant William K. Gregory smiting the clerical Amalekite hip and thigh; the classical French of Professor Vallois faithfully reflected in an English translation; and the judicial elegance of Sir Wilfrid Le Gros Clark. This is undoubtedly a book for those scientists who have retained the two cultures of C. P. Snow.

The writers of these scriptures, though united in dogma, vary considerably in their exegesis; there is even an apostasy index (p. 519)! This is only natural where so much has to be inferred from so little in the way of fossil data. Because this book presents quite clearly both the agreements and differences between those who have devoted their intelligence and time to the most difficult part of all history it is to be recommended not only for the senior but also for the junior student of our science.

M. A. MACCONAILL

The Biology of Art: A Study of the Picture-Making Behaviour of the Great Apes and its Relationship to Human Art. By Desmond Morris. London (Methuen), 1962. Pp. 176.

93

A zoologist specializing in the behaviour of apes and chimpanzees discusses paintings and drawings made during the past 50 years by 32 infra-human primates. He compares them with art by human infants and by certain contemporary *avant garde* artists (*tachistes*). He concludes that apes show comparable control of composition, development in calligraphy, and variation in aesthetic intent. In these respects, apes show individuality of style, and a strong preference for regular or rhythmic patterns, whereas infants early prefer calligraphic variation to compositional patterning. In relation to the art of infants, that of apes coincides with the stage of diagrams, which in infants occurs between two and three years of age. No ape has yet achieved an image. In infants the attainment of pictorial forms is related perhaps to calligraphic development.

The experimental history and conditions of these discoveries are set forth with scientific caution, although art critics will question the evaluation of the qualities of different ape paintings and drawings. For example a work by the London chimpanzee named Beebe is called 'soft'; Fifi's is 'brash.' To the observer unacquainted with the animals, these characterizations and others like them are meaningless, being equally served by the opposite terms without change in relevance.

The closing chapter contains reflections on 'The Rise and Fall of Representational Art.' Morris regards the *tachistes* as having regressed deliberately and for good reasons to the level of the 'multiple scribbling' of apes and infants. For the sake of rigorous

demonstration, however, one wishes that these stimulating observations had been documented more carefully in the annals of contemporary painting, and that more carefully chosen excerpts from the artists' declarations of intention had been presented. Painting in the contemporary scene is more complex than the author suggests. The paintings and drawings by the apes likewise deserve more rigorous terms of appraisal than either the biologists or the critics are now prepared to deliver.

GEORGE KUBLER

Introducing Population Statistics. By Norma McArthur. Publ. under auspices of the South Pacific Comm. and Australian Nat. Univ. Melbourne, London, etc. (O.U.P.), 1961. Pp. viii, 137. Price £1 17s. 6d.

94

Three aspects of population study are of interest to anthropologists. First, there is the simple fact of rate of population growth both as a great world problem and in regard to the differing rates of growth (or decline) of rival nations and of ethnic or religious groups within them—especially in the new democracies.

Second, there is the study of phenomena within a population, such as the post-war bulge, which has enabled the authorities to plan school accommodation, teacher training and housing needs and enabled industrialists to plan productive capacity and manpower requirements. Other phenomena are the effect of epidemics, especially on small islands, the effect of localized unemployment and internal population movements (e.g. from north to south) and the effects of wars and immigrant labour on the balance of population between the sexes.

Finally, the practice of population measurement itself can be instructive. A national census is a sociological event. The causes of lying, for instance, may range from female vanity to a desire to evade taxes or military service, or to secure voting power or state grants.

The demographer has one useful concept which merits employment by the student of society, *viz.* the cohort. Each cohort consists of all those persons born at the same time: thus a child born in 1943 belongs to the 1943 cohort, or, if five-year periods are used, to the 1941-45 cohort. Once the period is passed the cohort is closed and apart from immigration it cannot be increased and must in any case decline to extinction in about 100 years. The experience of a cohort will be more or less unique—e.g. in respect of wartime influences, and the educational, nutritional, vocational and political backgrounds prevailing as it passes through its various age groups. It may thus develop cultural characteristics of its own.

Dr. McArthur's book is an excellent introduction to the subject—lucid, accurate and readable. The examples, chosen chiefly from island data, are easier to study than the data of a large Western country.

H. E. WADSWORTH

The Supernatural Owners of Nature: Symposium on the Religious Conceptions of Ruling Spirits (Genii Loci, Genii Speciei) and allied concepts. Edited by Å. Hultkrantz. Stockholm Studies in Comparative Religion I. Stockholm (Almqvist & Wiksell), 1961. Pp. 165. Price 30 Sw. cr.

95

Three years ago Nordic anthropologists, folklorists and students of the history of religion discussed and lectured on an outstanding phenomenon in ancient hunting culture, namely, the respect paid to nature and all living creatures. Three contributions are of fundamental importance. The first is I. Paulson on the souls and guardian spirits of animals (see also MAN, 1962, 271). The second is Mrs. Rooth on 'the rulers' in southern Sweden. Her research reveals that the ruler of the wood in Sweden is connected by 'hidden but significant traits' with the Lord of Animals in Eurasia and North America. Third is W. Liungman's paper on the *rä*, a supernatural being believed to reign over forests, lakes, etc., as well as over the animals in those areas.

Four lecturers recorded and analysed fairly recent folk traditions about sprites, wood and mountain spirits. Others dealt with the 'Heilbringer' (the mediator between human beings and God or the gods), with forest guardians in Latvia, Finland and Africa, with

the forest goddess in India, and with the owner of the animals in the religion of the North American Indians.

The discussions have been written down, but unfortunately they are not included in this volume. ELLEN ETTLINGER

Education and the Working Class. By Brian Jackson and Dennis Marsden. London (Routledge & Kegan Paul), 1962. Pp. 268. Price £1 8s.

96

At the last British Association meeting, in Manchester, it was stated that only two-thirds of the children with grammar-school ability actually go there. The wastage is greatest among able children of working-class parents; they begin to lose ground from eight years of age, but may avoid this if they go to a good primary school, or if their parents are keen and helpful, or if they move to a new housing estate. The Chief Inspector of Schools expressed his concern at the bad effects of streaming which made transfer very difficult. Transfer from secondary modern to grammar school is sadly infrequent and 86 per cent. of scholars at the former leave school at 15, compared with only 3 per cent. at the latter.

The volume under review throws useful light on this problem. It is a study in some depth of the progress of 88 working-class children in a north-country town (actually Huddersfield) who had been to grammar school and then to college or university. It shows that most of these had certain characteristics which gave them some advantage over the typical working-class child: 29 were only children and 32 had only one sibling; more than half had some cause for educational ambition, such as a parent who had once belonged to the middle class or a parent or relative who had received higher education. Others again came from a socially mixed district where the primary schools had a large middle-class intake.

The account of interviews with parents in their homes gives good local colour besides illustrating the family background. The statistics are useful but could have been improved sometimes by giving corresponding information for the town as a whole: thus the statement that 57 homes of parents were owned and 24 rented, while on five there was no information, was a careful piece of research which would be greatly enhanced by an estimate of the owner-occupier proportion for Huddersfield itself. The value of an enquiry of this kind, however, is considerable. It indicates what may be the root causes of much educational inequality and wastage within the state-school system and paves the way for remedial action. To an anthropologist it confirms that the United Kingdom is no exception to the rule that in organised societies socially higher classes try very hard to secure educational advantages for their offspring. It shows that planning equality of educational opportunity is a difficult thing. H. E. WADSWORTH

Beiträge zur Völkerforschung: Hanns Damm zum 65.

97

Geburtstag. Edited by D. Drost and W. König. *Veröffentlichungen des Museums für Völkerkunde zu Leipzig*, No. 11. Berlin (Akademie Verlag), 1961. 2 vols. Pp. 752, 4, 6 text figs., 10 maps, 156 plates, 3 tunes

Professor Damm is well-known for his anthropological research on the South Seas, sports and games, ploughing implements and agriculture. A number of his publications record the rebuilding of

the Völkerkundemuseum of Leipzig and his activities as its director. The bibliography of his publications during the last 40 years covers eight pages. It is particularly well arranged: books, papers, reviews and the works which he has edited are clearly indicated.

The papers of the *Festschrift* refer to all parts of the world: 18 deal with the South Seas, seven with Asia, 11 with Africa, eight with America and five with Europe. Some are of general interest, e.g. the meaning of circumcision, the relations between transhumance, nomads and alpine pastures, Miklucho-Maklai and the colonial annexation of New Guinea in 1884 by imperial Germany (with many references to British colonial policy). The prehistoric collection of Leipzig and the anthropological collections of Cairo, Berlin and Herrenhut are discussed. Among the rare museum objects described in detail are a painted tent cloth of the Dakota Indians, a restored Japanese Emma-ō figure dating from 1753, ceremonial *Klangvögel* and a beautiful bird relief from Benin.

The *Festschrift* is splendidly produced and lavishly illustrated.

E. ETTLINGER

The Ancient Culture of the Bering Sea and the Eskimo

98

Problem. By S. I. Rudenko. Toronto (U.P.) (London agents: O.U.P.), 1961. Pp. 186. Price £1 4s.

The Arctic Institute of North America has earned the gratitude of all northern anthropologists for their initiative in organizing a series of translations of important anthropological works from Russian sources, and in this way making the results of Russian research available to a much wider audience. The work is being generously supported by the U.S. National Science Foundation. The editor of the series is Dr. Henry S. Michael and this first volume is a full translation by Paul Tolstoy of a book published in Russia in 1947. It is very well produced, with the same illustrations as the original, and it fills a long felt need.

The report begins with a summary of Eskimo archaeology in Russia and Alaska, and then goes on to describe Rudenko's work in 1945, when he carried out an archaeological reconnaissance of the Chukchi Peninsula, visiting and testing a number of sites there. This is followed by a comparative analysis of the material which he found, and general conclusions are drawn in the final section. In Rudenko's opinion, the northern Bering Sea region has been a single cultural area since early times, and he has found in the Chukchi Peninsula the same cultures that have been defined in Alaska as the Okvik, Old Bering Sea and Penuk. He rejects the theory that the Eskimo culture developed on the arctic coast of Siberia, and considers instead that its origins should be sought in the insular parts of South-East Asia.

Northern anthropologists will find this work an invaluable accession to their libraries, and will want to add to it the succeeding volumes in the Arctic Institute series. The second of these is *Studies in Siberian Ethnogenesis*, a collection of articles by various Russian authors, and was published in 1962. Other translations planned are: 'Anthropology and Ethnogenetic Problems of the Peoples of the Soviet Far East,' by M. G. Levin; a collection of six articles on Siberian shamanism; a collection of 14 or 15 articles dealing with the archaeology of north-eastern Siberia; and two works by A. P. Okladnikov, 'The Distant Past of the Maritime Province' and 'Yakutia Before its Inclusion into the Russian State.'

G. W. ROWLEY

AFRICA

The Acholi of Uganda. By F. K. Girling. *Col. Res. Stud.* No. 30. London (H.M.S.O.), 1960. Pp. x, 238

99

Dr. Girling has produced a most readable account of the Acholi, documenting their history from the reports of nineteenth-century travellers and describing their contemporary life as well as their traditional social order. He has particularly eschewed the technicalities and jargon of the anthropological profession. It is a pity that this book could not have appeared in a series more likely to claim the attention of the ordinary reader than the Colonial Research Studies, most of which are of a more technical nature.

The core of the book is an exposition of traditional Acholi society in terms of a series of widening spheres: the household, hamlet, village and domain. This has great merit for the general reader who needs above all a straightforward treatment, but anyone who wishes to gain systematic knowledge on points of kinship, ritual or political organization will find material on these subjects scattered haphazard through all chapters and he has no index to guide him.

The culture and social organization of the Acholi as described by Girling greatly resemble that of other neighbouring Lwo groups, especially in such features as: the segmentary lineage system and

the distinction between noble and commoner lineages; the politico-ritual character of chiefship, its fragility and frequent replacement through the substitution of one line for another or the capture of chiefs' sons, and the dependance of chiefly authority on the backing of agnatic groups; the incorporation of groups of diverse ethnic origin within the same structure; the combination of ancestor-worship, as the ritual counterpart of the lineage system, with beliefs in spirits inhabiting prominent rocks, rivers and trees; the considerable attachment to cattle combined with the practice of shifting agriculture based on millet staples; and the kinship terminology as well as the content of kinship roles and the system of courtship, bridewealth, marriage and levirate. Ruling lineages were able to obtain control of more cattle and more women, hence to produce more offspring, form more separate exogamous groups and so in time to alter the ethnic composition of the whole society.

Certain interesting problems arise from Girling's account. Succession to ritual and political office is classed as ultimogeniture. By this is meant that elder sons marry and establish their own homesteads, or even move right away, during their father's lifetime, while it is the youngest married son at the time of the father's death, who is still living in the paternal household, 'who assumes the care of his mother, and so becomes the custodian of his father's ancestor shrine,' succeeding to his ritual and political status. But, in a polygamous family, the youngest married son at the father's death is by no means his father's youngest son, yet Girling frequently refers misleadingly to succession by the youngest son.

The unmarried children of a dead man pass under the control of their father's heir, their elder brother whom they now know as *uvora*, 'father or owner.' It is to be noted that this elder brother is in every other passage referred to as his father's youngest son! The subsequent position of these unmarried children and their descendants in the lineage is not clarified. The paradigm on p. 63 suggests a difference of three generations between the 'eldest son' of a whole village lineage and the lineage elder or 'youngest son.' But the examples of actual lineages do not bear this out. It seems that both the stated norm and the empirical practice in respect of succession and inheritance would repay further study.

The matter becomes even more confusing when we are told that the rightful successor to a chief was his youngest son by 'the wife of the chieftainship' who has been installed with him. But the rule was not invariably kept and disputes were frequent. If this wife was childless, other sons could be chosen, in fact all the chief's sons by all his wives had a claim. On the one hand the chief told the elders his favourite successor before he died, on the other any son could gather his supporters to press his claim. Finally, the Kings of Bunyoro sometimes arbitrated in such disputes. All these factors are familiar in other systems similar to Acholi, except that of ultimogeniture, which seems to make little sense among so many competing possibilities.

In any polygamous family system of this sort the problem arises that older sons themselves become established as heads of compound families during their father's lifetime. Rigid primogeniture is one answer. Succession by the fittest, according to various criteria, is another. Ultimogeniture (though in this case not of the youngest son) appears to conflict with the economic and political realities of the situation, in the absence of more detailed explanation as to how exactly property and power are allocated in terms of such a system. One obvious answer would be the clear expectation that older brothers would move off independently and not compete or conflict with the younger heir. Such a process could be accommodated in the segmentary lineage structure, but would spell extreme political fragmentation in the case of ruling lineages. It is very important to know whether this was in fact what occurred to any considerable extent in Acholiland. If so, it would clarify certain structural differences between them and their neighbours.

It is difficult to resist comparison with better-documented models of ultimogeniture such as that of the Kachins (see E. R. Leach, *Political Systems of Highland Burma*, London, 1954, *passim*). Here there is a high degree of consistency, because the various components of the model clearly interlock; the rarity of polygyny limiting complexity, the moving-off of the low-status eldest son, who confirms his loss of status by wife-taking and possibly even uxoricidal

residence, while the youngest and senior son confirms his retention of the highest status within a limited circle of his fellows, all of whom are wife-givers to one another, hence also of course wife-receivers, but able to reinforce their prestige because the continuous exchange of bridewealth among them enables it to be on an impressive scale. Competition for bridewealth rather than for women fits the lack of polygyny, while the relative dispossession of intermediate sons highlights the contrasting paths of youngest and eldest.

The Acholi case suffers both from contradictions and from lack of evidence. The youngest son is not really the youngest son, the situation is confused by the prevalence of polygyny, there is no clear norm of elder sons hiving off, or losing status by wife-receiving, though it is true that they would do so by uxoricide, but this they certainly do not practice. There are no clear restricted circles of unidirectional exchange, rather a vague system of general exchange, the limits and direction of which are undefined, so that status depends more on volume than on direction, whether of wives or cattle. Finally, other writers on the Acholi, as well as educated Acholi themselves, do not admit the existence of ultimogeniture.

Ambiguity attaches to the relation of chief to 'father of the soil' and chief to war leader. Some writers have stated that Acholi chiefs were themselves war leaders, but Girling considers this unlikely, at least until the period in which they began to acquire guns. He considers that the person of the chief and the prosperity of his domain were too closely involved for his safety to be risked in war. Yet elsewhere it is suggested that the chief's authority is secular, while ritual authority over the fertility of the women and of the land belongs to the father of the soil—the descendant of the original inhabitants of the area and guardian of its spirit shrine.

Although these confusions are exasperating to the reader, they should not be taken as a reflection on the author's fieldwork, which was of high quality though unfortunately cut short unexpectedly to half its intended duration. This was an insurmountable handicap, to which was added the obligation to prepare the material for publication at a time when his interest in it had already flagged.

In appendices Dr. Girling cites the evidence for the continuity of a number of Acholi chiefships from the time of Emin Pasha 80 years ago until now, genealogies of many chiefly and commoner lineages are given, there is a brief account of Acholi hunting and land tenure by R. M. Bere, a former administrative officer, and a limited amount of data are included from a random-sample survey of village lineages throughout Acholiland. A full account of this 'must be included in a subsequent communication,' says the author. It is greatly to be hoped that this will be forthcoming, so rare are such surveys in social anthropology.

A. W. SOUTHALL

Indians in a Plural Society. By Burton Benedict. London (H.M.S.O.), 1961. Pp. 168, illus.

100 This is a wholly satisfactory book. In 12 chapters it gives information about a small plural society which has come into being in Mauritius. Though it is an island, each component of the plural society has a cultural background and roots on the three continents of Africa, Europe and Asia. The population represents four religions with their sub-divisions, many racial groups, and people whose social and economic status ranged from the indentured labour to proprietors of large cane farms and factories. Slavery has now been abolished and adult franchise introduced into this little island world. The author has described, carefully, demographic features embodying enumeration of people of different races, religions and economic conditions. Equally careful is the description of the important social structures of Hindus and Muslims. He has pointed out the fields of competition and conflict, on the one hand, and the likely direction of integration, on the other. He presents a very interesting and dynamic picture of the impact of cultures, cultural change and cultural accommodations. Among the statements which he makes, two especially sound peculiar. 'Among all Hindu village exogamy is the rule. . . . This holds even in town.' In view of the difference between the northern and southern practices in present-day India, this statement applying to both Tamil and Northern Hindus seems to be very strange. The author must have made careful inquiries about the clans living at

the places of his research and his statement must be taken to represent a current practice. If so, it represents the acceptance by the 'Southerners' of a new restriction on marriage which is entirely foreign to the whole of Southern India. On p. 94 the author remarks that *Golāwat* or exchange marriage is popular among 'Northern' Hindu families and he quotes examples of it from a Rajput family. This form of marriage is quite well known but is frowned upon throughout Northern India and is practised by poorer people only. On p. 96 the author remarks that gift-giving at wedding is public. It would interest him to know that in present-day India, among certain people, loudspeakers are used to announce the amount of the gift and the name of the donor in such a way that the whole town knows about it.

There seem to be certain words misspelt or misunderstood. Below are listed a few of them. P. 98: '*Kāmadān*' should be '*kanyādān*'. P. 99: '*Tāli*' is not a gold bangle; it is a round plaque, sometimes a hollow plaque. '*Lāwā*' is translated as 'grilled unhusked rice'; it is, in India, something like pop corn, a variety of puffed rice. P. 111: '*Panchan*' reads as '*panchāṅg*' in India. '*Rāskēnām*' is not 'the name of race,' but a name based on the '*rās*,' i.e. the zodiacal sign under which a baby is born. P. 124: '*Dakshimā*' in India is called '*dakṣiṇā*'. P. 134: '*Naivedia*' is not 'nine pure foods'; it is 'any food,' even a pinch of sugar which is offered to the deity.

These are but small slips in an otherwise very admirable book. Especially illuminating is the description of the working of law and custom in the case of civil and religious marriages. Pp. 104 onwards, the remarks on leadership and the present political set-up, are very interesting. It would be worthwhile following up the same study of the same people ten years later.

Reading of this book suggests that in the present world of giant conflicts, there might be a hope of creating groups of multi-cultural nations held by the slender thread of the common wealth—a group which is primarily concerned in mutual help. In such an endeavour, one of the main tasks is to understand fields of prejudices and fear in order to remove them and the anthropologist would have as much work as the economist and the politician if such a goal is set up by the 'common wealth' countries consciously and deliberately. Again, one is happy to read a book which gives a wealth of facts well arranged and opens up possibilities of further work of the same kind.

IRAWATI KARVE

L'enfant mukongo. By Marie Thérèse Knapen. Louvain (Nauwelaerts), 1962. Pp. 202. Price 170 Belg. francs

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In this book, Dr. Knapen, a Belgian educationalist, reports on her research into personality development and the process of socialization which she studied in the context of a matrilineal society in the south-west Congo. Dr. Knapen had sought out families with children under 5 years of age because she hoped to be able to relate developing social and moral attitudes to the prevalent interpersonal relationships in these families.

In this particular culture the infant experiences a sudden transition at the time of weaning—which is brought about rapidly between the ages of 18 months and 2 years, usually when the mother is pregnant again. From being the youngest and therefore the indulged and most important member of the family the infant finds himself suddenly pushed away from mother and encouraged to make contact with his father and with the group of children of his own age or older.

In this society in which there is little social differentiation, in which the material culture is simple and in which the world of the adult and the world of the child form a single reality, all emphasis is placed on submission to the authority of the elders and of the clan, on social adaptation and on the identification of personal achievement with the achievement of the group. Actions are judged by their effect on the group rather than on the basis of abstract moral principles.

The author describes her method as 'holistic,' and thus related to Gestalt Psychology; consequently she believes that one cannot study any particular problem in isolation from its biological, psychological and cultural context. The first part of her book contains some interesting discussion of the methodological problem and a description of her own procedure which reveals much sensitivity.

Yet the report of her actual research results leaves one somewhat dissatisfied; she does not seem to have avoided all of the dangers of which she is so much aware. The culture and the people in it fail to come truly to life, and her conclusions, though some are most interesting, do not emerge naturally from the data which she presents, but are more in the nature of theoretical extrapolations. Nor has she seen this culture truly in the round: being preoccupied with the mother-child relationship she has left relatively unexplored the child's relationship to his father and his feelings for him and also the actual and felt experiences of a child entering the group of his contemporaries, through whom, apparently, the process of socialization is set in motion.

Comparing the description of results with the description of her methods one is led to suspect that this book represents merely a summary of what is probably a very much fuller and more detailed research report. It has resulted in the production of a slim and thus manageable volume, but one wonders whether, having sacrificed the sap, she can now present us only with the bones of her work.

ROSEMARY GORDON

L'habitation des Fali: Montagnards du Cameroun septentrional. By Jean-Paul Lebeuf. Paris (Centre Nat. de la Rech. Sci., Hachette), 1961. Pp. 608, plates, text figs., maps

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This magnificently illustrated book is a contribution both to the study of the material culture of the Cameroons and to the metaphysics of West African peoples. In its second aspect it takes its place beside A. and J.-P. Lebeuf's studies of the Kotoko and the studies of the Dogon and Bambara conducted or inspired by the late Marcel Griaule. The book is appropriately dedicated to the memories of Mauss and Griaule. It is the fruit of four expeditions to the Fali, the first conducted under Griaule's direction by M. Leiris and E. Lutten in 1932, the last by A. and J.-P. Lebeuf in 1956.

The book deals with the mountain Fali of Adamawa, some 27,000, settled in the plateaux of Tinguélin and Kangou and the highlands of Bori Péké and Boussoum, in a line running north-east from Garoua on the upper Benue. These Fali are distinct from the so-called Fali Kilaen or Durru, conquered by the Ngaundere Fulani, and from the Nigeria Fali of Mubi and Uba briefly surveyed by Meek. Exactly which Fali communities are referred to by Frobenius in *Und Africa sprach* is rather difficult to determine in the absence of detailed maps: Frobenius's sketchy material is ignored in the extensive bibliography, no doubt for good reason. There is another group also called Fali associated with chiefdoms of Chamba origin in the Benue Province of Nigeria, about whom there is no material in English or French; they are referred to in the Gara of Donga's historical works in Hausa.

The study is divided into four parts. An introduction describes the geographical setting, traditions of migration, social, economic and religious organization of the Fali in outline. Three main sections follow. The first describes the architecture and domestic equipment of the Fali, including their striking granaries of sun-dried clay and their symbolic stools, in meticulous detail supported by clear text figures and photographs. A chapter devoted to the changing layout of the Fali homestead provides a graphic basis for the understanding of the Fali domestic cycle. The second, with the help of diagrams, presents the cosmology of the Fali and their categories of thought, exemplified in an elaborate system of correspondences between man and nature. The third exhibits the Fali homestead and its appurtenances as a microcosm of the Fali conception of the universe and a reenactment of the process of creation. There appear to be some remarkable similarities between Fali and Dogon and Bambara symbolic thought, for example, the correspondence between parts of the body and grains, the symbolism of granaries, the opposition between the settled world and the wild, and the creative disturbances produced by singular beings, in the Fali case by the hunter *cum smith*.

M. Lebeuf promises us further publications on Fali symbolism which should illuminate aspects of the Fali numerical system, twin cult and mythology which could not be dealt with in detail in this work.

P. M. KABERRY

- A Pastoral Democracy: A Study of Pastoralism and Politics among the Northern Somali of the Horn of Africa.** By I. M. Lewis. London (Internat. Afr. Inst.), 1961. Pp. xiv, 320, 9 plates, 4 text figs., 12 maps. Price £2 5s.

This book, which is based on field work done in the Northern Regions of the Somali Republic (formerly British Somaliland) between September, 1955, and June, 1957, makes clear for the first time the nature of Somali political organization. The physical character of the country is considered by Dr. Lewis to be unfavourable to the development of stable groups like the tribe, and he therefore prefers to call 'clans' those units which have hitherto been regarded as 'tribes'; and the six major groupings Dir, Isaaq, Daarood, Digil, Hawiye and Rahanwiin become 'clan-families' in his terminology. The Somali thus have no 'chiefs' as the term is understood elsewhere, but some clans (though not all) have 'clan-heads,' called in Somali *suldaan* (sultan), *boqor*, *ugaas*, or *garaad*, who have no political authority; in the author's words, a clan-head is a 'symbol for and focus of the agnatic solidarity of the clan.' Society is divided into two classes: *wadaad* or 'religious expert' (Burton's 'hedge-priest') and *waranle*, 'spear-bearer.' The 'sultan' may be an arbitrator, with ritual duties; the *wadaad* is simply a spiritual leader. In such society kinship is even more closely integrated with organization, and Somali genealogies—often extensive—are necessary representations of 'the social divisions into corporate political groups.' Kinship and claniship alone are not the keystones of political solidarity: there is a third element, *heer*, 'contract,' which combines with the *tol*, 'agnatic kinship' (a word formerly translated 'tribe'), to form a unit the members of which are 'united in the payment of blood-wealth'; and they refer to themselves as *tol heerleh*, 'agnates bound by contract.'

This book has long been needed. It is free from jargon, readable, and provides an intelligible account of a political system which previous writers had failed to describe with sufficient accuracy.

G. W. B. HUNTINGFORD

- In Feudal Africa.** By Edwin M. Loeb. Indiana U. Res. Center for Anthropol., Folklore and Ling., Publ. 23 (Internat. J. Amer. Ling., Vol. XXVIII, No. 3). Bloomington, 1962. Pp. 383. This book is based on an expedition to the Kuanynama which occupied a total of 15 weeks. This was in 1947-48, but the result takes us right back to the days of Frazer, Roscoe and

Rivers (there are no genealogies, however). Whatever the title might suggest, Ganshof and Marc Bloch might never have lived; and the treatment of the material is such that one is surprised, after 300 pages, to meet a reference to Radcliffe-Brown. Oberg is quoted in connexion with the theory that feudalism must produce a plethora of nobles who have to be got rid of somehow; the Nkole accession war is interpreted as a means of doing this.

Dr. Loeb regards feudalism as a phenomenon of diffusion, and his aim in the study of Kuanynama culture is to disentangle the strata which have accumulated in it as its bearers migrated from the shores of the Mediterranean to their present habitat in South-West Africa. He finds that there are four: a hunting, fishing and gathering culture which accounts for certain techniques and for puberty ceremonies and rites of transition; a negroid hoe culture, with matriliney, beer, periodic sex licence, a high position for women indicated by easy divorce, etc.; an early Mediterranean patrilineal cattle-raising culture with inheritance of the father's name, the patriarchal family, a number of cattle ceremonies and a well established legal system; and a Zimbabwe 'big city' culture accounting for the lay-out of the kraal, the divine king, the special position of his mother and sister, pages at court, a drum language, a moon cult and sacrifices at royal graves.

LUCY MAIR

- Africa: A Social Geography.** By Anthony Sillery. London (Duckworth), 1961. Pp. xii, 244, 101 photographs, 3 maps. Price £1 15s.

This book, by a former administrative officer in Tanganyika and Bechuanaland, is a study of Africa region by region, and is for reading rather than for reference. It has no tables of statistics, and physical geography plays a smaller part than social geography, which covers ethnology, history, economics, communications, agriculture, and industries. In addition to the Continent itself, the islands are briefly described—Cape Verde, the Canaries, Madeira, the Comoros and Madagascar. There is a short Reading List, which might with advantage have mentioned the volumes of the Ethnographic Survey of Africa. The illustrations are good and well chosen; and altogether the book is a useful and readable addition to the geographical literature on Africa. Though it is not an anthropological book, the anthropological material in it is sound.

G. W. B. HUNTINGFORD

EUROPE

- A Spanish Tapestry: Town and Country in Castile.** By Michael Kenny. London (Cohen & West) and Bloomington (Indiana U.P.), 1961. Pp. x, 242, illus., maps, index. Price £1 5s.

The striking contrast between city society and village society is a well worn sociological theme, yet it is of such complexity, variety and importance that we need not complain at its frequent recurrence. Dr. Kenny tackles this theme from a highly specific angle. To quote Evans-Pritchard's introduction, he offers 'a vivid and detailed piece of ethnographical writing'; rather, he offers two pieces, one about Ramosierra in Old Castile, an old isolated village, now of some 1,500 inhabitants, the other about San Martin, the central parish of Madrid, with a population fluctuating between 25,000 and 30,000.

Dr. Kenny is indeed courageous to tackle these two communities single-handed, one of them a large complex stratified segment of a great city, and that without any of the usual paraphernalia of research assistants, questionnaires, interviews and tables. The difficulties must have been immense. Occasional personal comments lend authenticity, but I was disappointed to learn so little about the details of the research. At times I wondered just how Dr. Kenny collected some of his information.

The twin accounts follow a similar pattern of exposition: a general introductory description; earning a living; authority and power; the family; social position and social control; and religion, fiestas and leisure activities. No overall theory governs the arrangement, nor is there any straining after scientific or pseudo-scientific gimmicks.

Yet the specific analyses of particular topics are constantly and appositely illuminated by the current ideas of social anthropology.

Ramosierra has one remarkable feature. All genuine local heads of households have rights to a share of a communally owned pine forest. Income from this source, which is allocated by lot, amounted in 1958 before deductions to £23 a month per household (p. 21). This extraordinary communal golden goose is plainly central to any discussion of the village; it abolishes penury, provides a barrier against the integration of outsiders, diminishes economic pressures to emigration, binds people to the pueblo, by making it a very real property-owning corporation, and provides a symbol of unity. I wondered if Dr. Kenny's considerable emphasis on it was yet sufficient.

These pine forests apart, Dr. Kenny provides a model analysis of this type of small community—the intensity of belonging to the village above all other larger social units, and the fund of envy and mistrust which is itself a function and an index of the intensity of the local social network. He introduces some original terms for analysing the social hierarchy, dividing the people, not by their relative metaphorical height into Upper, Middle and Lower, but by their functions into Leaders, Controllers and Servers, a set of terms which he finds it possible to retain for describing also the ranking system of Madrid; but he is careful to say how the village itself speaks of its social distinctions. He ends with a lively description of the fiestas, and an analysis of their social role.

Inevitably the description of the urban parish and its social

processes is less coherent. It is vastly more complex and not at all a self-contained social entity. Some of the detail included seems arbitrary, and at other times treatment seems a little scanty. How indeed does one decide what to put in and what to leave out? The almost total absence of quantities leaves one unsure of the force of many general statements. But the overall picture is skilfully drawn, and full of acute observation and sensible comment.

Spain is a Mediterranean society, still largely traditional and only superficially adjusted to the accelerating flood of changes brought by the technological age. Dr. Kenny's juxtaposition of town and country is to some extent confused by the implicit contrast between traditional and new which runs through the book, more especially the urban half. Moreover, he emphasizes the Spanishness of much of what he describes, yet it is hard to know how much is Spanish, how much is Mediterranean or European, and how much is characteristic of Spain because it is characteristic of many traditional societies faced with technological innovations. This uncertainty is at most only partly due to the author; even if he had discussed it explicitly, he could hardly have solved all the problems which it raises.

Dr. Kenny is theoretically modest; and his apt and sometimes original application of social theory to specific instances shows us that this modesty springs from a sane respect for difficulties. But his last remark, on 'the dilemma of segmentary personalized loyalties having to work within and often against the nationalizing impersonality of official systems of authority,' has implications far beyond the boundaries of Spain, which we can only hope that Dr. Kenny will pursue.

PAUL STIRLING

Primitive Scandinavian Textiles in Knotless Netting. By

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O. Nordland. *Studia Norvegica* No. 10. Oslo (U.P.), 1961. Pp. 154. 83 illus. 1 map. Price 18s. 6d.

This excellent study deals with textile techniques which are known by primitive people all over the world and were highly developed in Precolumbian South America, in the Antique Cultures of the Near East and in Coptic Egypt as well as in Mediaeval Europe. Up to recent times they have been used in Northern Europe.

The techniques of knotless netting or looping all have in common the fact that they allow the formation of a fabric with one single thread. So far they are similar to knitting and crocheting; they differ in that the whole length of thread must always be pulled through the newly formed part of the fabric, whilst in knitting and crocheting one is working with the part of the thread next to the last-formed mesh.

The author gives very exact descriptions of the numerous variations of knotless netting in Scandinavia. They are classified by him according to the forms of coiling and threading in the fabrics. Instead of names he uses a very accurate numerical system to indicate the different variations.

Mr. Nordland also gives a complete survey of the contemporary and early distribution of knotless netting in Scandinavia, where it has been known since the neolithic period. His data on looping techniques in other cultures are incomplete. They are quite sufficient, however, to discuss the two points of historical importance: first the author deals with the technical position of knotless netting within the textile system and rightly describes it as more primitive than crocheting and knitting; secondly his examination of the possibilities of the spontaneous invention of the technique at different places, or of its diffusion from one place, shows clearly that it is impossible yet to come to firm conclusions in such cases.

ALFRED BÜHLER

Die Gottesgestalt der lettischen Volksreligion. By Haralds

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Biezais. *Acta Universitatis Upsaliensis, Historia Religionum*, Vol. I. Uppsala, 1961. Pp. 267. Price Sw. kr. 25

Latvian folklore has until recently retained much of the old paganism which disappeared from the official plane with the introduction of Christianity in the thirteenth century. Well-known scholars such as Mannhardt were attracted by the traces of

religious beliefs reminiscent of those of the ancient *Rigveda* Indians. Unfortunately, most of the popular beliefs were preserved in folk songs, so-called *dainas*. Their mythological references, in particular, are very difficult to unveil, and metaphors and Christian influences blur the picture. Consequently, the most conflicting views exist of the old Latvian religion, many of them arbitrary and launched without necessary criticism of the sources.

Biezais's book, which discusses the concept of the Godhead among the old Latvians (*Dievs*), presents in many ways a reaction against this superficiality. The author is careful in sifting out the material which can—or may—throw light on the pagan belief in God. As a result there emerges the picture of a high god who is well integrated with the life of the Latvian farmers and who himself is depicted as an imperious farmer surrounded by his family and people.

Since the author is dealing with very difficult material it is only natural that other interpretations than his own are easily at hand. Some of the functions which he attributes to the high god might, in my opinion, rather belong to lower spirits of the household-spirit category (cf. especially pp. 141, 142, 173, 175, note); for in its diminutive form the name for god may also designate these local guardians (*dievini*).

The author argues rightly against the assumption of primæval monotheism. Perhaps he goes too far, however, when he denies the existence of a belief in the heavenly god in ancient Indo-European times (pp. 43, 87). It would be difficult to explain the common features of the high-god concepts among many Indo-European peoples in later times if this were so. The material which he adduces to prove that *dievs* originally meant quite heaven and not also god in Latvian pagan religion is not quite convincing.

Nonetheless, this is an erudite and important contribution to the history of religions in one of its most difficult areas of research.

ÅKE HULTKRANTZ

Wörterbuch des Waldlappendialekts von Malå und Texte zur Ethnographie. By Wolfgang Schlachter. *Lexica Societatis Fenno-Ugricae* XIV. Helsinki, 1958. Pp. xix,

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294. Price Fmk 2,500 (\$8)

Wolfgang Schlachter, who is Professor of Fenno-Ugric Linguistics at the University of Göttingen in West Germany, collected the materials for this book during a four months' visit to Swedish Lapland in 1940. The idiom described in the book belongs to the so-called Ume Lappish dialect, which is spoken on both sides of the border between the counties of Norrbotten and Västerbotten. This dialect has its special interest in forming a transition between the Lappish dialects of North Lapland and the South Lappish dialects. It has been insufficiently known hitherto, and it is a matter for satisfaction that this dictionary, together with about 100 pages of text samples with German translation, has been published. The material—for the dictionary as well as the texts—was recorded from one single informant Lars Sjulsson, who was 69 years old at the time, except for a couple of text specimens given by his wife. The texts and the title words of the dictionary are given in an orthography which is based on an orthographical system that has been used in Sweden for other Lappish dialects, especially Lule Lappish, but in the dictionary all words are also given in phonetic transcription that is generally used for the Fenno-Ugric languages when the aim is to give the reader as precise an idea as possible of how the language or dialect in question actually sounds. In an introductory chapter we also get a brief survey of the morphology of the dialect in the form of noun and verb paradigms.

The dictionary is not very comprehensive (about 6,000 words by a rough estimate), but it gives a good picture of the vocabulary of the dialect, and the texts give valuable contributions to the ethnology of the Lapps, besides being of course of great linguistic interest. The informant tells of the life and customs of the forest Lapps in earlier days, partly in the form of ethnological descriptions and partly in the form of memoirs from his own life, and there are also descriptions of folk belief and superstitions. The book can be recommended to those interested in Lapp linguistics as well as to ethnologists and students of folklore.

BO WICKMAN

A RARE NUBA TRUMPET COLLECTED BY THE SELIGMANS*

DR. K. P. WACHSMANN

The Wellcome Historical Medical Museum, London

IIO Trumpets of one sort or another are universal. Composite instruments of widely varying design are found in many places in Africa, but a *pavillon* of beeswax has so far been reported only by the Seligmans¹ from the Nuba and by Dr. Gordon D. Gibson² from the Himba.

The Nuba trumpets (fig. 1) were 'peculiar trumpets, *taro*, associated with wrestling, made from the horn of a kudu prolonged by a peculiarly shaped mass of wax and perhaps clay. Only important and successful wrestlers possessed or were allowed to blow them; they were so highly valued that it was impossible to purchase an original specimen, but no difficulty was raised about copying one, and the specimen³ brought home is now in the British Museum.⁴

The wax section B-C is moulded over the wide end of the kudu horn; it is constructed from strips of beeswax, built up over its entire length in the manner of coiled pottery, and like pottery it is smoothed over in parts. The trumpet is side-blown; the hollow tip is carefully filled with wax. Thus the possibility of obtaining a stop for an additional note by piercing the extreme tip at A is clearly disregarded. From a musical point of view the instrument is much closer to the end-blown trumpets, rare in Africa, than it is to the common side-blown instruments of hunters and warriors and of the court musicians of the equatorial kingdoms. End-blown trumpets yield either single-tone patterns or at best 'fanfares' using the fundamental and the octave above it, but the twelfth above the fundamental could also be produced on the Nuba specimen if it was needed. The hunters' and regalia instruments usually perform on an interval smaller than a minor third. The fundamental note which can be produced on the Nuba specimen is roughly A below middle C but there is latitude in the pitch of this note which can be controlled by lip tension and force of breath up to middle C.

End-blown instruments outside the Moslem empires are as a rule composite. This is not entirely due to their large size, but it would be equally difficult to find a convincing acoustic or ethnological reason for these shapes. One might add, however, that the bulbous section is a natural feature in conch trumpets, and that the tube-cum-vessel design is also realized in some trumpet practices. Australian aborigines⁵ insert their trumpets into a hole in the ground or some large vessels like a shell or a paraffin tin and on Malekula⁶ large hollow logs are used for the same purpose. In the *Tore* ceremonies of the Congo Pygmies,⁷ the lower end of a tube was placed into a pot

filled with water, and the tube was blown like a wind instrument.

The tube-cum-vessel construction seems to be concentrated in the Southern Sudan,⁸ in the extreme north-east of the Congo,⁹ in the Eastern Province of Uganda¹⁰ and on the eastern shore of Lake Victoria where the end-blown instrument of the Luo and Gaya¹¹ is a most striking example.

As to function and social significance it seems that by and large trumpets are either symbols of virility and announcers of death, or they are associated with the cult of cattle. As to the former, the Logoli¹² of Kenya broadcast the news of a person's death on the trumpets, and the Baka and Basketto tribes¹³ of Southern Ethiopia have similar customs in mourning. The trumpet of the Logo¹⁴ 'was used exclusively in former days to bemoan the death of a great man': incidentally, in the Logo instrument beeswax is used to fix a gourd *pavillon* to a tube consisting of the horn of the water buck. The Madi call their *uluru* 'the lion' and see in it a symbol of strength,¹⁵ just as the people of Shinyanga in Tanganyika call their trumpet 'lion's cry',¹⁶ sounded only in the presence of their chief. As to the large trumpets of the East African coast, Gervase Mathew¹⁷ remarked that 'in some fashion they enshrined not only the strength but the spirit of the people,' and one could say the same of the regalia trumpets of Uganda because of their close link with the institution of kingship. Yet, they also stimulate and excite cattle. I reported previously¹⁸ how 'herdboys in Uganda make a popular sport of hiding in some convenient place, usually behind an ant hill, and imitating with their voices the sound of trumpets, to make the cows dance.' Gibson¹⁹ described how amongst the Himba the trumpets with the *pavillon* of beeswax and the herding of cattle went together. The Nuba and Himba specimens have in common not only the wax *pavillon* but also the application of red *Erythrina* seeds for decoration. They are different in several other respects which need not be listed here.

The shape of the Nuba trumpet is most unusual on account of its slightly conical extension projecting from the bulbous section. I cannot recall having seen a similar design in any specimen, but I feel tempted to compare it to the objects held by the figures painted on the rock of Mushroom Hill in the Drakensberg. Professor C. van Riet Lowe²⁰ published a line drawing of this scene and interpreted the objects as musical instruments. The late Professor Curt Sachs²¹ compared them to the *uluru* of the Madi and quoted in support of this view an illustration in *Tribal Crafts of Uganda*.²² Other interpretations have

* With a text figure

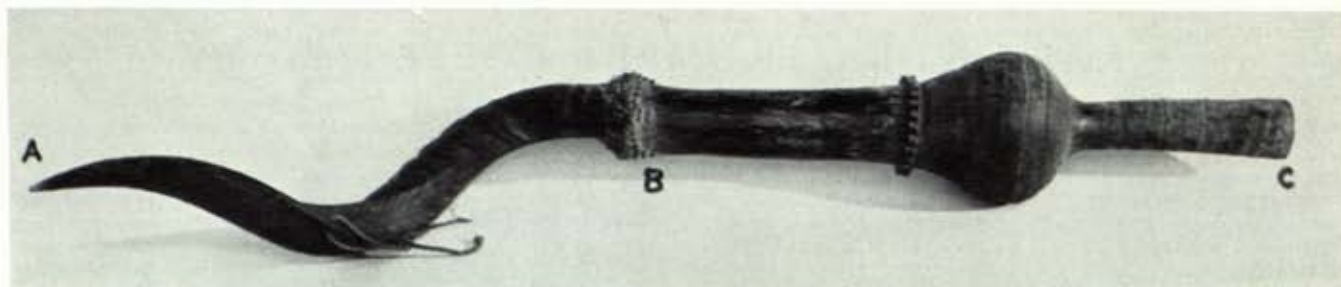


FIG. 1. KUDU-HORN TRUMPET WITH WAX EXTENSION, FROM JEBEL TALODI, SUDAN
Length 43 inches. Photograph by courtesy of the Trustees of the British Museum

been offered, all musical with one exception according to which these objects are digging sticks weighted with stone rings.²³ The Abbé Breuil²⁴ subscribed to a musical theory and said of the objects 'il n'en existe de comparable chez aucun peuple Sud-Africain.' If the Drakensberg objects are musical instruments, then the Nuba trumpet can be compared with them.

Notes

¹ C. G. Seligman and Brenda Z. Seligman, *Pagan Tribes of the Nilotic Sudan*, London, 1932, pp. 384, 393.

² Gordon D. Gibson, 'The Himba Trumpet,' *MAN*, 1962, 258.

³ From Jebel Talodi. British Museum No. 1928.3-7.22. Dimensions: length, 107.5 cm.; extension in wax only, 53.3 cm.; maximum diameter of bulbous section, 13.2 cm.

⁴ *Op. cit.*, p. 393.

⁵ C. P. Mountford and Father E. A. Worms, personal communications; also *MAN*, 1954, 261.

⁶ J. W. Layard, 'Degree-taking Rites in South West Bay, Malekula,' *J. R. Anthropol. Inst.*, Vol. LVIII (1928), Plate XVII, fig. 4.

⁷ P. Schebesta, *Among Congo Pygmies*, London, 1933, p. 254 and plate opposite p. 264.

⁸ For the Jur see Powell-Cotton Museum, Birchington, Kent; for the Belinyan Bari see tori trumpet at Uganda Museum, Kampala.

⁹ B. Costermans, 'Muziek-Instrumenten van Watsa-Gombari en Omstreken,' *Zaire*, 1947, p. 636.

¹⁰ K. M. Trowell and K. P. Wachsmann, *Tribal Crafts of Uganda*, London, 1953, p. 348, the trumpets *atoros* and *usukusuk* of the Tesot.

¹¹ Max Weiss, *Die Völkerstämme im Norden Deutsch-Ostafrikas*, Berlin, 1910, p. 235, fig. 179.

¹² Gunter Wagner, *The Bantu of North Kavirondo*, Vol. I, London, 1949, p. 452.

¹³ A. E. Jensen, *Altvolker Südäthiopiens*, Stuttgart, 1959, pp. 103, 223.

¹⁴ *Op. cit.*, p. 363.

¹⁵ Dr. J. Hunter, personal communication.

¹⁶ K. P. Wachsmann, field notes.

¹⁷ Roland Oliver, editor, *The Dawn of African History*, London, 1961, p. 51.

¹⁸ *J. R. Anthropol. Inst.*, Vol. LXXXIII (1953), p. 53.

¹⁹ *Op. cit.*, pp. 161f.

²⁰ C. van Riet Lowe, 'Rock Paintings near Cathedral Peak,' *S. Afr. Archaeol. Bull.*, Vol. IV (1949), p. 32, fig. ii, and pp. 28-33.

²¹ Personal communication.

²² *Op. cit.*, Plate LXXXIII, fig. c.

²³ A. R. Willcox, *Rock Paintings of the Drakensberg, Natal and Griqualand East*, 1956, pp. 77f.

²⁴ Abbé Henri Breuil, 'Les roches peintes d'Afrique Australe, leurs auteurs et leur âge,' *Anthropologie*, Vol. LIII (1949), p. 403.

MULTIPLE HUMAN FIGURES IN WESTERN PAPUAN GULF ART*

DOUGLAS NEWTON

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III The people of the western Papuan Gulf, between the Bamu River in the west and the Era River in the east, belong to several differing cultures. Haddon (1918) and Wirz (1934) distinguished the 'Kerewa' culture of Goaribari Island, influencing those of the Bamu, Turama and Kikori Rivers; and those of Urama Island, Wapo Creek and the Era River. The ritual objects of all these people include numbers of wood carvings usually associated with collections of pig, crocodile and human skulls. Elliptical boards, which may for the sake of convenience be called *gope*, are common to all the cultures. The 'Kerewa' culture is remarkable for half-length silhouette human figures (*agibe*) to which the human skulls are attached. The Wapo, Urama and Era cultures have full-length silhouetted human figures, practically *agibe*

* With eight text figures

but called *bioma* (wood). In appearance the *gope*, the *agibe* and the *bioma/agibe* are thus totally dissimilar to each other. For the purpose of the present notes, however, the question is whether it is possible to confirm, or rule out, the existence of genuine connexions between the various types of objects not only by tracing cultural analogies, but through the iconographic elements which are involved.

The designs on the *gope* generally—and probably always by intention—show the human figure, but the ways in which it is depicted vary considerably. They fall roughly into two categories. One is a form of naturalism. In this context the word is used relatively, of course: it implies little more than that certain stylizations of human features are assembled in rather standardized groupings to render easily recognizable human figures. In the other category



FIG. 1. GOPE (a-d) AND BIOMA (e, f)

(a-d) Turama River: (a, b, c) village opposite Gibu; (d) Haragu; (e) Wapo Creek, Era River district; (f) Era River. (a-d) Private collection, New York; (e, f) P. Wirz collection, Tropen Museum, Amsterdam (2670-289, 288)

the same stylizations—and also quite different ones—may be combined in such groupings as make their intended content much less accessible. In these cases, moreover, it sometimes appears that the stylizations themselves may be used ambiguously or in more than one context. Both categories of depiction occur in all the different art-style areas which may be detected between the Turama and Era Rivers.

It is always questionable whether collections of objects available for study genuinely reflect the statistical occurrence of types of design in the actual ethnological situation. Presuming that in this case such a correspondence does exist, it would seem that as far as *gope* are concerned a greater incidence of naturalism is to be found in the western part of the area (Turama and Kikori Rivers) than in the eastern part (the Wapo-Urama-Era district).¹ In the latter, indeed, naturalistic figures may well be limited (apart from some minor objects) to *agibe/bioma* silhouettes. It also appears that naturalistic representations in all these districts are more consistent with a few mutually related norms than are the more highly stylized designs: these show a wide range of arbitrary—indeed what one can almost describe as individualistic—inventive fantasy. Nevertheless, in spite of their dissimilarity, very definite relationships may be traced between the naturalistic and the stylized designs which demonstrate that, even though the aesthetic variation is so marked, there is no distinction of content between them. It is one of these relationships which will be discussed in the following notes.

For the most part, the naturalistic *gope* designs are limited to showing a single human figure, most often in

the 'hocker' position. Only a few from Goaribari Island and neighbouring villages show two naturalistic figures: of the same size, they are superposed quite directly in two registers, or, in one instance, standing side by side (Newton, 1961, figs. 126-8). Several *gope* from the Turama River are of unusual interest in being exceptions to this. Two of them share several stylistic traits, including the conventions used for the heads, shoulders, legs and the general formation of the arms. In one (fig. 1a), most of the surface area is occupied by a single standing male figure; the arms hang straight down at its side, and the intumed hands touch a head placed at waist level. This head is fully realized in a convention virtually identical with that of the main figure.

Two more *gope* (fig. 1b, c), also from this area, are in a markedly variant style, with a notably different convention used for the heads. The most striking feature which they have in common is the formation of the thorax. Below a strongly stated rib cage is a large circle; this is (definitely in one case (c) and discernibly in the other) bracketed above and below by concentric crescents. The obvious conclusion might be that the circle represents an actual anatomical feature. The abdominal cavity at once comes to mind; so does the idea that it may be a grossly exaggerated navel. In each figure, however, a small circle below the sternum seems already to occupy a plausible enough position for a 'normal' navel. One may compare several other boards from the same river which incorporate a very common design: this consists of three (or more) contiguous sets of small concentric circles in a horizontal row. This feature occurs on at least two Turama boards in such a position that the central circle is well placed to be in the navel's

position (Newton, 1961, figs. 97, 98). In many objects from the whole west Gulf area it is so situated as to suggest that the design represents a bark belt decorated with shell rings or discs, with the additional function that in some cases the central circle doubles for the navel. On fig. 1c, the design appears entire (but vertically) on the right hip; the large circle is a completely separate unit. It is therefore tempting to suppose that in figs. 1b, c the large circles are summary representations of human heads in positions analogous to that of fig. 1a.

Yet another type of Turama River *gope* is distinguished by having a head at the top, legs and male genitalia at the foot of the board, and a mid-section composed of a vertical series of paired scrolls. In the example illustrated (fig. 1d), it is clear that the scrolls represent four pairs of eyes, the bisected diamond below each pair being a nose. This would seem to be a stylized version of the first type described, with a multiplication of subsidiary heads. Some of these *gope* come from Haragu (or Aru-gu) on Morigi Island at the mouth of the Turama River; the style has such congruity that it may well be local to a single village.

We are therefore already presented in the relatively few examples known of *gope* from the Turama River with one case (possibly more) in which a principal figure is associated with a separate head or heads.

To extend the search for more compositions of these types (or type) we may go at once to the eastern end of the area. It is immediately manifest that the small *bioma* and *agibe* figures of the Wapo-Era region are engraved so that a ridge follows the outer edge of the limbs, while the interior spaces are ornamented with various outline designs in relief. In one example (fig. 1e) this inner design shows an easily detectable smaller figure with raised arms superimposed on the main figure, the waists being coincident. A third element is less obvious: but the two circles at the waist level of the figures (again in a logical position for shell belt ornaments), and the disproportionate penis of the smaller figure suggest the eyes and nose of another face. The legs of the small figure are so posed as to repeat the forms surrounding the eyes of the main figure, while the crescentic form between them is perfectly consistent with a frequently used convention for the mouth. It is thus possible to trace here not merely two but three separate human units, one of them being a second head at waist level. This is a clear example, but not an isolated one. Another *bioma* (fig. 1f) from the Era River apparently shows a circular head and upraised arms just below the star-shaped navel design typical of the region. This clarifies the point that the secondary figure motives are intentionally quite distinct from the navel patterns.

Nevertheless, the habitual ambiguity in use of so many conventional motives in this art is expressed by a design which often appears on the 'torso' area of these Wapo-Era figures. This is a diamond foliated at the side angles (horizontally) or at top and bottom (vertically). It usually occupies the position of the navel, but its form has other significant implications. We may refer to an instance where, horizontally foliated, it occurs on a single board in two variants: the first (fig. 2a, above) is close to the smaller

figure demonstrated in fig. 1e; the second (fig. 2a, below) is much less so, though the relationship remains discernible. This latter design is in the same degree of stylization as those shown in fig. 2b-e. (It may be noted that fig. 2e also relates to a 'second face' in rather the same manner as fig. 1e.) The configuration of a vertically foliated variant

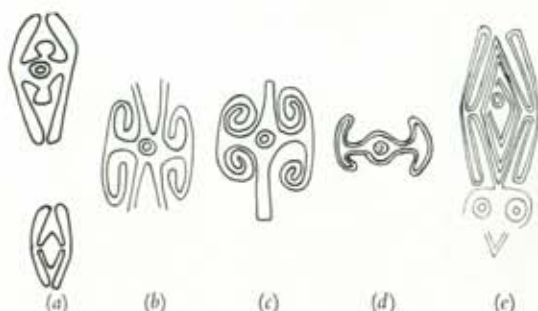


FIG. 2. DETAILS FROM A GOPE (a) AND FROM BIOMA (b-e)

(a) Era district; (b) Era River; (c) Era-maipua. (a-c) P. Wirz collection, Tropen Museum, Amsterdam (2670-271, see Newton, 1961, fig. 178; 2670-285; 2670-270). (d, e) After Wirz, 1933, Plate XIII, 3

of this design (typical forms are fig. 3a, b) is elucidated by reference to the highly specialized designs of Tetchui village, north of the Wapo area. Fig. 3c shows how this version arises from a vertical repetition of the design; 3d how it develops naturally from the negative spaces of the horizontally foliated design. Assuming that each variety of foliated diamond represents ultimately a lesser figure superimposed on the main one, it becomes possible to account for the double sets of limbs of many small *bioma* figures (fig. 3e).

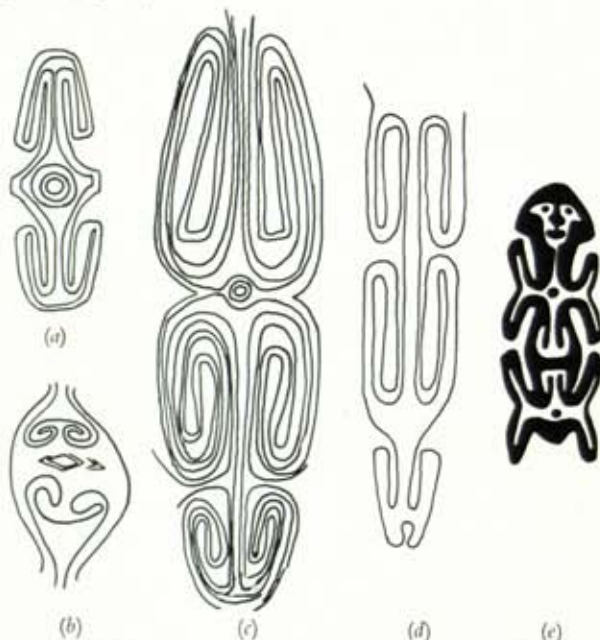


FIG. 3. DETAILS OF BIOMA (a, b) AND GOPE (c, d) AND A BIOMA (e)

(a) Era? Tetchui? (b, e) Wapo creek? (c, d) Tetchui. (a-e) P. Wirz private collection and Tropen Museum, Amsterdam; 2149-2; see Newton, 1961, figs. 161, 166, 167, 157 respectively.

A number of *gope* from the same general region are remarkable for their highly complex, and at first glance abstract, designs. They are indeed complex, but far from abstract. They are composed of conventionalized human features so arranged that they can be regarded in a number of different combinations to produce an equivalent number of human figures. A simple example (fig. 4) has in the upper half of the field a head with an attached hocker figure (c); inside this is another complete figure (d). Two elements further down may be combined with the arms of the first hocker figure to create two other quite separate figures (a, b); while each of these elements may in itself be a separate stylized face.

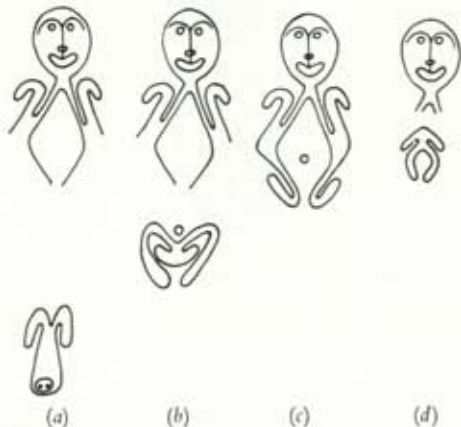


FIG. 4. DESIGNS FROM A GOPE, WAPO CREEK

P. Wirz collection, Tropen Museum, Amsterdam, 2670-269 (see Newton, 1961, fig. 151)

A more complex example is displayed in fig. 5a-e. This, analysed in terms of the main head, shows at least five main figures; but even this analysis is far from complete. By comparison with fig. 4d, it seems probable that the lowest element in fig. 5c, d (register IV) may be taken as a complete figure. More importantly, the 'arms' of fig. 5a, d (in register II) have situated between them a pair of contiguous circles used in other contexts, including the main face here, as a convention for the nostrils; thus the terminations of the 'arms' are equivalent to eyes (compare fig. 1a, e): thus, this element is also a face. This gives rise

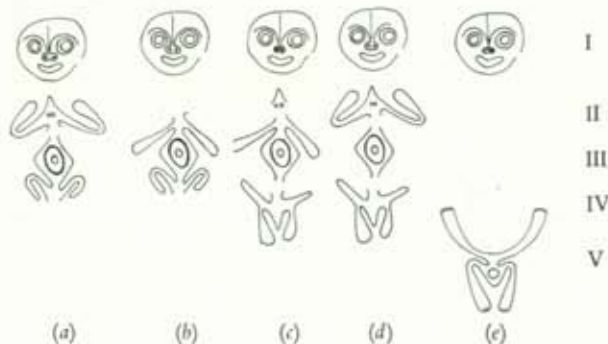


FIG. 5. DESIGNS FROM A GOPE, WAPO CREEK

P. Wirz collection, Tropen Museum, Amsterdam, 2670-273 (see Newton, 1961, fig. 148)

to a further series of permutations which may be expressed as (b) II-III, (c) II-III-IV, (e) II-V.

The same theme can be traced on some of the *gope* from the Iwaino people of Urama Island, lying between the Wapo and Kerewa areas. Among the most commonly used design elements of this area is the scroll, placed in rows along the edges of the boards. These scrolls lend themselves very easily to adaptation as such forms as those of fig. 2b and the lower part of fig. 4b (see Newton, 1961, fig. 187). Moreover in their positive and negative aspects they are peculiarly suited to form highly stylized hocker figures simply through symmetrical repetition. In the most complex example (fig. 6a) this repetition leads to an overlapping which may best be described as an elaboration of the process illustrated in fig. 3c, d.

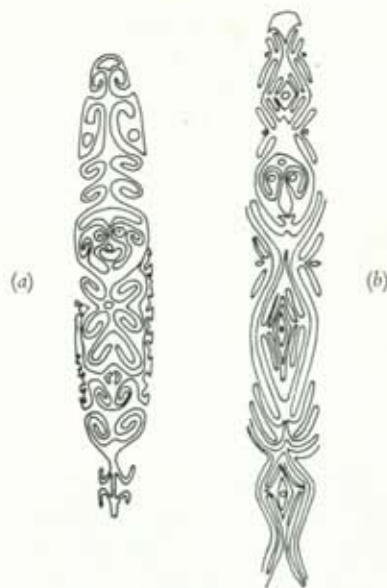


FIG. 6. GOPE, URAMA ISLAND, AND DETAIL OF GOPE, GOARIBARI

(a) P. Wirz collection, Museum für Völkerkunde, Basel, Vb8025 (see Newton, 1961, fig. 188). (b) Chicago Natural History Museum, 142707 (see Newton, 1961, fig. 134)

It has already been remarked that the Kerewa-area *gope* do not seem to show superimposed figures of a naturalistic kind with any great frequency. An extra pair of arms (?) on one of the naturalistic *gope* (fig. 7a) seems to imply a comparison to a *bioma* (fig. 3e). So does the external outline of

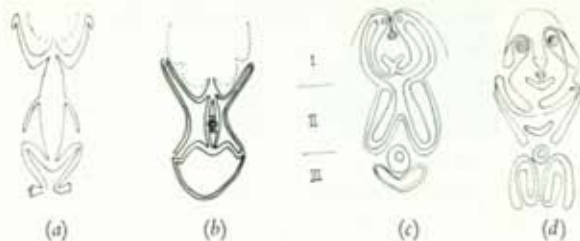


FIG. 7. DETAILS OF GOPE

(a) Goaribari, Chicago Natural History Museum. (b) Museum für Völkerkunde, Basel. (c, d) Kerewa area, Chicago Natural History Museum, 142709 and 142708 (see Newton, 1961, figs. 133 and 132)

another (fig. 7b), though this is probably a semi-fortuitous formation deriving from the placement of the curves or loops which so often border Kerewa *gope*, though these may certainly describe uplifted arms. A simple *gope* design (fig. 7c) may be resolved into perhaps three figures, with a pair of arms in register I, two more pairs in register II and navel and legs in register III. Similar elements are placed to create probably only one figure to another *gope* (fig. 7d). One very large example from Goaribari (fig. 6b) is perhaps the most elaborated *gope* at present recorded from the Kerewa area. It is interesting to notice that, by contrast with the Wapo-Era *gope*, it is not only to be divided horizontally into registers to detect secondary figures, but also vertically. This elaboration of the design derives from the repetitiveness of figures concentrically arranged around the central 'navels.'

The significance of the *gope* in their own right and in relation to bullroarers and other objects has been discussed by several writers, though it seems quite probable that more remains to be said. To repeat: the association of *gope* with trophy skulls is not very clear in the Kerewa area, where they appear to have fairly distinct functions; the skulls are, however, intensely associated with the silhouette figures (*agibe*) to which they are attached. East of this area, the *gope* stand below partitions fitted with skull racks; silhouette figures (*bioma*) are associated with animal skulls. *Agibe* of the Kerewa type occur frequently in Wapo and Urama, but stand on the floor along with the *gope*.

It has been suggested that the Kerewa *agibe* represent hocker figures, the vertical projections between arms and torso, to which the skulls are hitched, being drawn-up legs. This is actually the case on one *agibe* (private collection, unpublished) from Kerewa village. Another possibility is suggested by the fact that below the arms and projections and across the lower part of the board there very often appear the contiguous-circles pattern which I have suggested represents a belt. Its waist-line level is indicated on a Turama River *agibe* (private collection, unpublished) on which it appears above a depiction of the genitals. Some *agibe* are thus genuinely half-length figures. An *agibe* in the Musée de l'Homme (fig. 8) has the arms terminating in hands turned inwards under the vertical projections. Since these projections are the supports of the skulls, is it possible that they represent (if they are not merely practical devices) the carved sticks on which trophy skulls are ceremonially carried? (It will incidentally be noticed that this *agibe* has a 'navel-figure' design of the type shown in fig. 2a, as well as a belt.)

This brings us back to the Turama River *gope* (fig. 1a, c, d, with carved heads held at waist level, giving a parallel to the Kerewa *agibe* which support real heads at waist level. The relationship of Kerewa *gope* to the bullroarers of the Kiwai area is fairly established, and can indeed be seen as immediately plausible because of a formal similarity. Here, however, we have an apparently close connexion in icono-

graphy between two totally different types of object. It is a connexion which helps to explain why Kiwai bull-roarers, Bamu River small skull-holders and Kerewa boards are all called *gope*. More than this, the iconographic evidence now links the Goaribari *gope*, as well as the Wapo-Era *gope* and *bioma/agibe* figures, into a single series in terms of significance.



FIG. 8. AGIBE, KEREWIA AREA

Musée de l'Homme, Paris (see Chauvet, 1930, Plate XLVI, 143)

Note

¹ The statement about the frequencies of multiple-figure stylizations in *gope* designs is based on an examination of several sources. These are (a) published material, (b) photographs (including field photographs) in the Museum of Primitive Art's Photo Archive, (c) a large group of photographs generously made available to me by Mr. Julius Carlebach. Taken together, these comprise well over 300 usable references, though not all can be assigned proveniences. The present notes are concerned only with a question of iconography, and are not in any way a classification of types or styles. A refined analysis, therefore, is obviously impractical here; but a rough breakdown gives the following results:

The Turama River: total 41 examples; three are of the fig. 1a-c type (about 7.25 per cent.); 17 are of the fig. 1d multiple-face type (42 per cent.). This large percentage may be due to the type's probable concentration in a small area from which they have been intensively collected.

The Kerewa area: total 130 examples; five of the multiple-figure type (about 4 per cent.).

Urama Island: total 24 examples; six of the multiple-figure type (25 per cent.).

The Wapo-Era district: total 114 examples; 61 of the multiple-figure type (53.5 per cent.).

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ROYAL ANTHROPOLOGICAL INSTITUTE

PROCEEDINGS

'Studies in Kinship and Marriage' for Mrs. Seligman's Eightieth Birthday

II2

On 26 June, 1963, Mrs. Brenda Zara Seligman, widow of Professor Charles Gabriel Seligman, F.R.S., will attain her eightieth birthday. To honour the Institute's greatest benefactor on this happy occasion, the President and Council resolved to publish a volume of essays on a subject of special interest to her, to be called *Studies in Kinship and Marriage*. This has been edited by the President, Professor Schapera, with a foreword by Professor Evans-Pritchard, and contains the following essays: E. E. Evans-Pritchard, 'Some Zande Texts'; Raymond Firth, 'Bilateral Descent Groups: An Operational Viewpoint'; Daryll Forde, 'Unilineal Fact or Fiction: An Analysis of the Composition of Kin Groups among the Yakö'; Meyer Fortes, 'The "Submerged Descent Line" in Ashanti';

Edmund Leach, 'Did the Wild Veddas Have Matrilineal Clans?'; Godfrey Lienhardt, 'Dinka Representations of the Relations between the Sexes'; Lord Raglan, 'Kinship and Inheritance'; I. Schapera, 'Agnatic Marriage in Tswana Royal Families.' The volume will be published at the Institute, in the format of its *Journal*, on Mrs. Seligman's birthday (price: cloth-bound, £1 15s.; paper-bound, £1 5s.; postage 1s.). A specially bound copy will be presented to her at the Huxley Dinner, which is to be held on the previous day, following the Annual General Meeting, the Garden Party in Bedford Square and the Huxley Memorial Lecture in University College.

The Honorary Editor of MAN has the honour to convey to Mrs. Seligman on her birthday the heartfelt congratulations of the President and Fellows and their earnest wish that she may enjoy many more years of their gratitude and admiration.

SHORTER NOTES

Tooth-Mutilation in West Africans. By D. H. Goose, School of Dental Surgery, Liverpool University. With five text figures

II3

The mutilation of teeth either by shaping or luxation has been practised in many widely scattered communities, e.g. by Australian aborigines (Campbell, 1925), certain tribes in North Borneo (Peacock, 1955), Precolumbian Indians (van Rippen, 1917; Fastlicht, 1948) and in Africa (Frazer and Downie, 1938).

before a child can be admitted to the adult society and among the Ibo of the Awka district of Nigeria, for instance, women used not to be allowed to bear children before their teeth were filed (Thomas, 1913).

Moortgat (1959) describes cases found in mesolithic and neolithic populations and suggests that customs such as tooth-mutilation in primitive man have deep origins which defy easy explanation and that the significance has often been lost to the tribes concerned today.

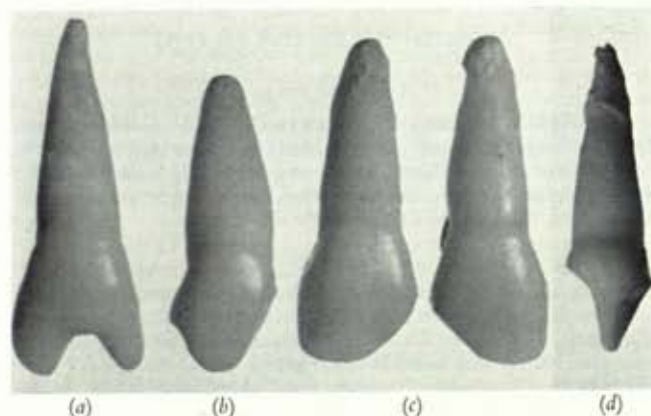


FIG. 1. VARIETIES OF MAXILLARY INCISOR TOOTH-MUTILATION IN WEST AFRICANS

The real reason for such customs is not entirely understood although numerous superficial ones have been given, for example that it makes men look more warlike or that it is for decoration to attract the opposite sex (Thomas, 1916). The Damara of South Africa say that their language cannot be spoken properly unless their front teeth are knocked out thereby giving them a lisp (Frazer and Downie, 1938). The Masai say it is useful to have a space in front of the mouth in order to feed people suffering from tetanus which was quite common among them.

In many cases it appears to be an initiation ceremony necessary



FIG. 2. PERIAPICAL CHANGE FOLLOWING MUTILATION
Radiograph of a jaw showing mutilated right maxillary first incisor with exposure of the pulp

In any case it is now tending to die out since as Ritchie (1958) points out it results in the individual possessing a handicap in the modern world compared with those individuals or tribes not

practising such a custom. In addition, in some tribes that practise tooth-mutilation, subsequent loss of teeth (which presumably is not uncommon) may be regarded as heralding the approach of senility with a consequent loss of status as in the Macomba tribe in East Africa (Short, 1959).

Types of Mutilation

A number of upper incisor teeth from Sierra Leone were received by me in connexion with another study and it was observed that several mutilated ones were present. Since they had been fixed in formalin it was decided to make a study of them including an examination of the pulps of some of them.



FIG. 3. A PULP EXPOSURE DUE TO MUTILATION IN A MAXILLARY INCISOR

Borbolla (1940) gives 24 types of mutilations including the placing of decorative inlays, but not so many types are present in Africa. Fig. 1 indicates some of the common varieties found in the present sample. The first is merely centrally notched; the second one is gently curved on each side; the third shows two centrals having their mesial corners only chipped and the last is a radical reduction to a spike-like shape.

The methods used to mutilate teeth appear to vary somewhat. Some tribes use hammers and chisels or stones with which to

chip the tooth; others prefer to use stones as files and others use knives (Moortgat, 1959; Marshall, 1946, and Thomas, 1916). No doubt different mutilations require different methods; e.g. type (a), fig. 1, could hardly be chipped but would need to be filed, while type (c) could easily be chipped out since they resemble fractures frequently met with in accidental trauma to incisors in children.

Effects on the Pulp

Often the result of mutilation is necrosis of the pulp with consequent periapical involvement and fig. 2 shows a radiograph of such a case. This is obviously more likely to happen from an exposure during the mutilation and type (d) would presumably nearly always cause this (see also fig. 3).

In some cases the trauma may fall short of causing actual necrosis and some other form of degeneration may set in. Fig. 4 shows such a case in which reticular degeneration has occurred.

In other cases the pulp appears to recover and normal secondary dentine is laid down, the pulp remaining vital (fig. 5).



FIG. 5. SECTION OF MAXILLARY INCISOR SHOWING FORMATION OF SECONDARY DENTINE ($\times 11.5$)

Acknowledgments

I should like to record my thanks to Dr. S. W. George-Coker, Dental Surgeon, Sierra Leone Medical Department, for the collection of teeth in Sierra Leone and to Mr. J. S. Baillie of the Photographic Department, School of Dental Surgery, Liverpool University, for his kind help with the illustrations.

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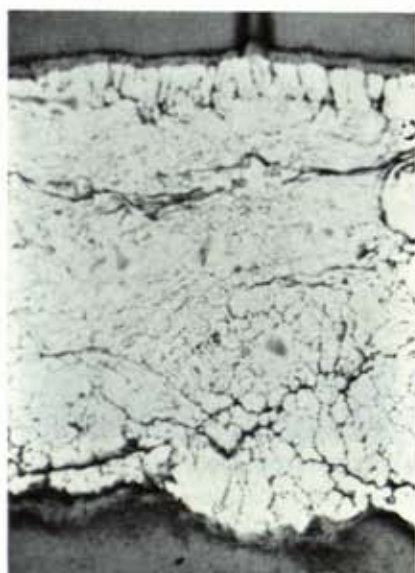


FIG. 4. SECTION OF MAXILLARY INCISOR SHOWING DEGENERATE PULP ($\times 49$ APPROXIMATELY)

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Proverbs: The 'Single-Meaning' Category. By Dr. T. N. Madan, School of Oriental and African Studies, University of London

II4

Professor Evans-Pritchard has recently stressed that 'the meaning of a proverb can, and does, vary from situation to situation' (MAN, 1963, 3). From the point of view of meaning there are obviously several categories of proverbs. The characteristic feature of one of these categories is that a proverb is an important aid to effective speech primarily because of its unambiguous single meaning, invariant in all relevant situations, and secondarily because of its pithily poetic and sometimes metaphorical nature.

I was able to collect many such proverbs in the course of my fieldwork among the Pandits of rural Kashmir.¹ Given below are ten examples pertaining to the field of kinship.

1. *Kur zeni malis kenhti chichuna nafa, kur chichai maji hanz rafakar.* 'A daughter's birth avails a father naught, but she is her mother's relief.' The Pandit kinship system is based upon the primacy of the father-son bond over all other ties. A son continues his father's 'line' in the lineage, preserves his name, supports him in his old age, offers him oblations after his death and inherits his estate. A daughter does none of these things; she, in fact, leaves her parental home on her marriage to take up residence with her parents-in-law. But an unmarried girl is her mother's close associate just as a father and a son are. She also helps her mother in domestic chores thus relieving her of some of the drudgery.
2. *Hunis neti kus, kur mangith rati kus.* 'Shear a dog for wool and adopt a daughter.' In the absence of a natural son, a Pandit couple may adopt one, but daughters are never adopted.
3. *Boi pyam haputh zam malyun am navane, buda vayren baman am bati haneyas yezmanbai.* 'My natal home has been revived by the birth of a son to my brother. Buds have appeared on old branches and I too will preside over ceremonies.' In the life of a growing boy his father's sister plays an important role on all ceremonial occasions. These occasions renew a Pandit woman's contacts with her natal family.
4. *Goda zai ba ta maj ad zav bab, doh panshi dab log ada budhab.* 'First to be born were I and mother, and then was born father. After a few days' pause [followed] grandfather.' The child's growing awareness of the people around him is given poetic and succinct expression in this proverb.
5. *Yami garich kur tai tami garich beni tai pof tai pofanani tami pata kostani.* 'I began as a daughter, became a sister, a father's sister, a father's father's sister and then—a nobody.' The importance of the closeness of kinship ties and the change of roles in a person's lifetime are here emphasized. Among non-agnatic cognates the Pandits regard only first and second degree cousins as kin (marriage with whom is to be avoided).
6. *Maji mam hai av, potra myon gav boi.* 'Mother, my maternal uncle has arrived. Son, he is my brother.' The bonds of affection are closer between primary kin than between secondary kin, and between agnates than between non-agnatic cognates.
7. *Me dop noshehna anim orai, nechuv hyath chajim yorai.* 'I thought I had got myself a daughter-in-law; I found I had lost my son.' A major theme in Pandit family life is the estrangement which grows between a man and his parents after his marriage.
8. *Garas andar son jan ta zani na.* 'Better have a co-wife living with you rather than your husband's sister.' One of the obstacles in the development of attachment between a man and his wife is

his loyalty toward his sister and her dislike for the woman her brother will love increasingly.

9. *Vari andar vani anganas andar kani ta gamas andar soni.* 'A flood in the garden, a boulder in the yard and one's son's (or daughter's) parents-in-law in the village [are all equally annoying].' Among the Pandits relations between affinally related households are oftener those of conflict than of amity and co-operation.

10. *Pitreni chcha michirkond adma varai rozina.* 'The wife of my paternal cousin is a thorn and pierce my foot she will.' There is a constant state of tension between cousins and between their wives, particularly the latter, in the Pandit extended family. These conflicts play an important part in the partition of households, and *piteruth* (literally, collateral ties of agnatic kinship) is a synonym for hostility.²

Notes

¹ Fieldwork was carried out in the Kashmir Valley in 1956-57 with financial support from the Australian National University.

² My detailed analysis of family and kinship among the Pandits of rural Kashmir will be published in 1964 by the Asia Publishing House, Bombay and London.

Newly Discovered Stone Figures from the Yoruba Village of Ijara, Northern Nigeria.

By Philip A. Allison.

Nigerian Department of Antiquities. With two text figures

The remarkable collection of some 800 carved stone figures at Esie, an Igbomina Yoruba village in the Ilorin Province of Northern Nigeria, were first reported in 1933 (although Frobenius had purchased three heads in the Esie style in Offa, about 10 miles to the west, in 1910; see *The Voice of Africa*, 1913, Vol. I, Plate IX). Some years later two similar carvings were found at the abandoned village site of Owode Ofaru, some 15 miles



FIG. 1. STONE FIGURES AT IJARA, NIGERIA

north-east of Esie, and early in 1962 eight more were reported by Mr. Jack Leggatt, of the Ministry of Works, at Ijara, an Igbomina village about ten miles east of Esie. The accompanying photographs were taken on 16 April, 1962.

The figures stand in farmland near the village and are arranged in a small circle; they are not rooted in the ground. All eight figures are damaged to a greater or less degree and all lack heads.

Three detached heads have been allocated, probably correctly, to three of the figures. The general treatment is similar to that of the Esie figures but lacks elaboration and ornament. All the figures are seated on stools with a circular seat and base, connected by a simple central pillar which appears at front and back between the legs; the feet are placed flat on the circular base. The arms are carved free of the body and, except for No. 6, both hands repose on the knees. All wear necklaces of four to six strands but are otherwise unornamented. The work is executed in a light-coloured crystalline rock whereas many, though not all, of the Esie figures are of steatite.

In the description which follows the figures are numbered in a clockwise direction, No. 1 being the right-hand figure of the two with heads in fig. 1 and the left-hand of the two figures with



FIG. 2. STONE FIGURES AT IJARA, NIGERIA

heads in fig. 2. No. 8—a battered fragment—stands at the centre of the circle. Fragments of slag and *tuyères* lie on the ground among the figures. The two figures with heads are about 24 inches high over all.

1. The left arm is missing from shoulder to wrist; six-strand necklace; head with conical cap, detached.
2. Right arm and left hand are missing; five-strand necklace; no head.
3. Head with conical cap with plaited band, detached; left hand missing; five-strand necklace.
4. Trunk, hands and legs only survive; traces of a necklace.
5. Trunk, legs and one hand only survive.
6. Much defaced head, not in place in photograph; right hand rests on knee, left hand on belly; four-strand necklace.
7. Right hand broken off but preserved; no head; four-strand necklace.
8. A fragment, left leg and left side of trunk only.

As at Esie and Ofaru, the figures are referred to merely as *Ere*, 'the images.' They are said to have been dug up by a farmer, at the spot where they now stand, about two generations ago, when the villages of Ijara had already been established for some time. Fragments of *tuyères* and lumps of slag occur on the surface near the figures and it is said that a man, referred to as Olowu, used to smelt iron here long ago. Annual offerings used to be made to the images of Ijara within living memory but the practice has

been discontinued in recent years. At Ofaru, offerings are still made to the images at an annual festival which lasts five days and had just been completed on the day of my visit, 18 March, 1960.

The site of Old Oyo is some 70 miles north-west of Esie and, although the Igbomina are a distinct tribe, Oyo influence and traditions seem to be long established in the area. The typically Oyo cults of Shango and *ibeji* (twins) have many adherents and carved wood cult figures, doors, houseposts and masks of a high standard of artistry are common in the Igbomina villages, though a number are ascribed to Arowogun and other carvers from neighbouring Ekiti villages.

The Muslim Nupe Emirates of Lafiagi and Pategi border Igbomina country to the north. The town of Lafiagi, on the right bank of the Niger, is some 60 miles north-east of Esie and in the past the Igbomina villages were subject to Nupe raids and, during the latter half of the nineteenth century, to raids from the Muslim Emirate of Ilorin. Today Christian mission influence is fairly strong in the area and, although the old Yoruba religious cults and festivals continue to flourish, most Igbomina would probably consider themselves either Muslims or Christians.

The vegetation of the Igbomina country is mainly of an open savannah type, but immediately to the south of Esie closed high forest begins to predominate. In such zones of climatic and vegetational tension, human interference, mainly in the form of clearing land for farming, inevitably tends to extend savannah conditions at the expense of the high forest. This process has been intensified in Nigeria during the present century by the cessation of tribal wars, population increase and the introduction of export crops, such as cocoa. It is probable that Esie and other South Igbomina villages were once well within the high forest zone which generally seems to have acted as an obstacle to the spread of the influence of the Oyo—essentially a people of the savannahs. The few examples of stone-carving in the Yoruba country, outside Esie, are all found in predominantly high forest areas (at Igbajo, Ife, Efon-Alaye and Eshure), and it seems likely that the artistic traditions giving rise to the stone carvings of Ijara and Esie are of pre-Oyo, if not pre-Yoruba, origin.

The Incidence of Middle-Phalangeal Hair among Gandhabanik. By Pratap C. Dutta, *Anthropological Survey of India, Indian Museum, Calcutta. With a table*

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C. H. Danforth (1921) was the pioneer in pointing out the utilization of the middle-phalangeal hair trait for the study of racial differences and also its process of inheritance, when he published his results on variations of this trait among various populations. Following him other scholars showed the possibility of establishing variations in the affected incidence of this trait in various human groups. It is well known that the presence of this trait is a dominant feature over its absence, and that the presence of hair on a great number of fingers is dominant over presence on a lesser number and that the trait follows Mendelism in the mode of inheritance.

Investigation of this trait, i.e., the presence or absence of hair on the middle phalanx of both hands, was carried out on 100 adult male Gandhabanik population of Calcutta during the year 1960-61. The population is an endogamous group and happened to be one of the caste groups of Hindu society constituting the Bengalee population. The mean values of cephalic, nasal and facial indices are 80.23, 73.07 and 85.12 respectively (Dutta, 1961).

In Table I, combinations of digits with middle-phalangeal hair among Gandhabanik are shown.

It is evident from this table that 49 per cent. of the population remains unaffected by this trait. When unilaterally examined, the left hand alone shows that the unaffected individuals are

TABLE I. COMBINATIONS OF DIGITS WITH MIDDLE-PHALANGEAL HAIR

Digit Combination	Left and Right Hand Combined		Left Hand Alone		Right Hand Alone	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
O	49	49	51	51	50	50
IV	17	17	17	17	18	18
III-IV	16	16	16	16	17	17
III-IV-V	8	8	7	7	6	6
II-III-IV-V	4	4	3	3	4	4
IV-V	2	2	2	2	2	2
Others	4	4	4	4	3	3
Total Individuals Affected	51	51	49	49	50	50

slightly higher (51 per cent.), whereas it is exactly half in the case of the right. It is of interest to note that digit IV shows the highest percentage of hair, while it is seen to be present in decreasing gradients following combinations of III-IV, III-IV-V, II-III-IV-V and finally IV-V.

A fuller account of this work will be published elsewhere together with the results of comparative study.

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CORRESPONDENCE

Zande (and Other) Texts. Cf. MAN, 1962, 235; 1963, 48

117

SIR,—Whom is Mr. Harrison trying to fool now? In your March issue, Mr. Harrison ventures to criticize Professor Evans-Pritchard's presentation of some Zande texts. Mr. Harrison states that the application of certain methods is axiomatic to the collection of folk texts. He says that such texts should always be accompanied by full particulars of the date of collection, the place and source of informant and his social status, and what contact he may have had with European missionaries and others up to that time. Mr. Harrison also considers it important to know whether texts have been written down or recorded with a tape recorder.

Looking through Nos. 1-7 in the new series of Mr. Harrison's magazine, *The Sarawak Museum Journal*, I have noted 39 folk texts. For 39 of these texts published by Mr. Harrison there is no indication of whether the informant had been in contact with European missionaries or others or not; for 38 there is no indication if the text was written down or recorded on a tape recorder; for 34 there

is no mention of the informant's source; for 33 there is no mention of the date on which the texts were recorded; for 32 there is no indication of the social status of the informant; and for 25 there is no mention of the place from which the informant came, or even where the texts were recorded.

It is interesting that 19 of these texts in Mr. Harrison's magazine are published without any of the 'axiomatic' information that Mr. Harrison is so ready to expect from others. Is this a record?

Acton, Canberra

J. MATTHEWS

Love in Polynesian Atolls. Cf. MAN, 1961, 242; 1962, 293

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SIR,—I invite Dr. Suggs (cf. MAN, 1962, 293) to state theoretical reasons and ethnographical or historical facts showing that, contrary to my own arguments and evidence (MAN, 1961, 242), Polynesian atolls are not exceptions to his generalizations about sexual licence in Polynesian societies.

A. P. VAYDA

Simbai Patrol Post, Madang District, Territory of New Guinea

REVIEWS

AFRICA

A History of the Southern Sudan 1839-1889. By Richard Gray. London (O.U.P.), 1961. Pp. xii, 219. Price £1 15s.

119

Mr. Gray has been able to throw new light on the history of the Sudan; as well as all printed material on the subject he had access to a great quantity of manuscript, private letters, Foreign Office reports, etc. The book is carefully annotated. In 1838 it was estimated that between ten and 12 thousand slaves were imported into Egypt yearly. Large numbers of Donga-lawi and Ja'liyan had made Khartoum their headquarters. Mohammed Ali went to the Sudan himself and saw the devastating effects of the slave raids and forbade them, but this resulted in only a temporary relaxation. The next year he sent an expedition of ten boats under a Turkish frigate captain who managed to force his way through the Sudd and reach Gondokoro. The Shilluk were hostile but the Bari gave the expedition a friendly welcome.

That the Nile could be navigable and so open a way to the Great Lakes created interest in political, humanitarian and trading circles. Pope Gregory XVI created the Vicariate Apostolic of Central Africa in 1846. Jesuits were well received by the Bari though they had difficulties with the Turkish authorities. There was a big demand for ivory in Europe for billiard balls, piano keys, knife handles, combs, etc., but before the opening of the White Nile it had only come via Zanzibar, and trade was entirely in Muslim hands. Now the Catholic Missions took up the trade and an 'ivory rush' by European traders began. Petherick, who was the British Vice Consul in the Sudan, came to England in 1859 to seek full Consular powers to promote British trade, which were granted by

the Foreign Office as it would cost practically nothing. A further request for 500 muskets, 80 elephant rifles, two tons of lead for 200 men, 'located amongst turbulent and warlike tribes,' seemed to Lord John Russell, then Foreign Secretary, a 'wild Arab scheme fitter for those districts than St. James's Street... a fourth of the number would suffice.'

When the explorers Speke, Grant and Baker came on the scene the slave trade was in full blast, and it was generally accepted that the chaos that existed in the Southern Sudan was entirely due to the rapacious slave-dealers. However, the diaries, letters and published accounts of earlier European observers show that this was far from being the whole story. The earliest contact with the Bari and Shilluk had been peaceful; small itinerant traders (*jellaba*) from Khartoum were bringing *merissa*, cotton cloth and beads to barter for ivory, cows and honey. The Bari had accumulated stores of tusks, as they killed elephants only for food, hence traders acquired them in exchange for handfuls of beads. After a while the market for beads became glutted, but the traders were unwilling to give up their great profits and relations became strained. The Cic Dinka were forbidden by one of their prophets to sell ivory. The Aliab Dinka were afraid to meet traders after one trading expedition had seized their women and children. The traders, finding the friendly exchanges no longer possible, resorted to force and to exploiting tribal rivalries. They aided one tribe, or even a tribal section, against another to make cattle raids and exchange cattle for ivory. Thus a vicious circle began: exchange—unscrupulous use of force—tribal raids—exchange of captured cattle for ivory and

taking vanquished as slaves. As the Muslims had always regarded the pagans as slaves the transition was simple.

Neither were the missionaries nor the Government blameless. The former did not understand the accepted attitude to hospitality and sharing of goods, nor the Bari law concerning the transfer of land. The difference between recruiting for the army and slave-raiding was perhaps not clearly defined by the Government. The Mission Station at Gondokoro which had been founded so hopefully was surrounded by a strong wall for defence against invasion by the Bari in 1853.

The evidence brought forward by Mr. Gray shows that the Slave Trade was not the major factor in the early contacts between the tribes of the Sudan and the outer world.

A French trader, de Malzac, became known as the 'King of the White Nile'; he established trading stations in the Dinka country and exploited the system of raiding so thoroughly that some Dinka tribes looked upon him as a brother because of his support against rival Dinka. This state of affairs became customary and it is reported that the Cic refused to provide porters for a trader unless the Aliab were raided for cattle. Khartoum became an open slave market. Said Pasha, the Viceroy of Egypt, abolished the slave market in 1857. But it was opened at Kaka in the Shilluk country and from there slaves were marched *via* Kordofan to Egypt or Darfur. It was estimated that about 2,000 slaves a year were sold at Kaka. The vicious circle in trade in the Bahr-el-Ghazal was similar, except that when the traders resorted to force, the Azande, with their efficient military organization, inflicted heavy losses on them after which they too exploited dynastic rivalries.

In the country south of Darfur the conditions were different. There, contact between Arab traders and pagan tribes was already of long standing, the slave trade was the primary factor and was carried on from Darfur into the Sudan.

In the eighteen-sixties a new type of trade developed. Arab traders established settlements surrounded by *zariha* for protection at good strategic points on the trade routes. At these posts a new Arab caste developed. One of the best-known of the *zariha* was Deim Zubair. Zubair was a Ja'li who settled in the Bahr-el-Ghazal, and employed 1,000 armed men; his *zariha* was surrounded by hundreds of farms. It is reported that in one year he exported 1,800 slaves.

The ivory trade had not brought about legitimate commerce; on the contrary, robbery and the expansion of the slave trade followed it. The Khedive Isma'il made great efforts to combat these evils; however, neither Baker nor Gordon who successively accepted appointments under him were able to avoid the use of force. To Baker this was merely a military necessity but Gordon as Governor of 'Equatoria' did his best to avoid force. Much against his will, he was obliged to make use of the Dongolese traders. In particular there was a Dongolawi who had hanged a chief because he had failed to provide carriers, and Gordon, instead of punishing him, had to condone the murder. He wrote to his sister: 'it is very bad I own, but he is an old black and knows the country perfectly.'

Gordon was appointed Governor General of the Sudan in 1877. The rivalry between the Dongolawi and the Ja'liyin became so great, that it was necessary to send a military expedition against them which proved very costly in men and money. The *zariha* trouble remained; and if the slave trade were to be stamped out in one place, it would rise in another. Moreover, Egypt was almost bankrupt. Gordon, after three years as 'Governor General,' was disheartened and resigned.

Gordon had appointed Emin as Governor of 'Equatoria.' Emin, a German Jew who had become a Mohammedan, found the province in a state of corruption and disorder. He managed to administer justice with understanding and became respected for his tolerance and bravery. He introduced rice, cotton-cultivation and weaving, and built a mosque, a school and a hospital at Lado. In 1883 Felkin wrote a glowing account of the peace and prosperity in Equatoria. Gessi, also appointed by Gordon, had some success in part of the Bahr-el-Ghazal province.

British philanthropists and business men urged the Government to open the way for Christianity and commerce; various explorers advised the White Nile route, the East Coast route, and the West

route *via* the Congo. The Foreign Office knew that Egypt was a broken reed. Nothing was done. So the way was paved for the rise and success of the Mahdi.

B. Z. SELIGMAN

Personnalité de la femme katangaise. By Maria Leblanc, Louvain (Nauwelaerts), 1960. Pp. 403. Price 380 Belgian francs

120

The effect of social change upon the role and personality of woman is a most interesting problem, though few specialized studies have been made of it. And yet any change in a woman's attitude to herself or in the men's attitude to her is likely to have far-reaching effects not only on the woman herself, but upon the whole cluster of sexual relations, pattern and pathology of the family and novel methods of child-rearing, which in turn bear upon the formation of the character of the new adults.

Dr. Maria Leblanc, a Belgian psychologist, became interested in these particular effects of the culture contact between Europeans and Africans in Katanga. She set out to explore the attitude and personality of Katangan women, comparing in particular those who had already been exposed to much European influence with those whose contact with Europeans had been relatively limited. This monograph is a report of her investigation, which, it seems, she submitted as her doctorate thesis. Professor Michotte van den Berck, describing how Dr. Leblanc carried out this work under the shadow of an illness which in the end proved fatal, infers that the author herself was not able to re-edit her thesis nor supervise its publication as a book.

Dr. Leblanc obtained her results by combining the method of participant observation—though unfortunately she does not describe the actual research techniques which she used—with the use of two psychological tests, the sentence-completion test and a Katangan version of the Thematic Apperception test. These tests were administered to 21 men and 15 women in Kolwezi, to 29 men and 14 women in Elisabethville and to 23 adolescent boys and 35 adolescent girls. The men were mainly primary-school teachers, the women supervisors of community centres. Her sample thus consists of people who have all undergone a certain amount of culture contact. This is a pity, as it is the author's intention to assess the effect of such culture contact, but we can grant her that Europeanization has been much more important in Elisabethville than in Kolwezi.

The traditional attitude pattern to the Katangan women is essentially anti-feminist and authoritarian. The woman is required to be passive and submissive and merely the provider of food and sexual gratification. The Kolwezi results show the traditional woman to be in fact very much concerned with the physical realities of her world, which contrasts with the women from Elisabethville who seem to concern themselves more with problems of personal and emotional relationships.

The extent to which women tend to identify with the role assigned to them is shown in the fact that there was more agreement about the role, function and character of women between the men and women in each of the two towns examined than there was between the women from Kolwezi and the women from Elisabethville. Dr. Leblanc explains this by suggesting that the need for security is so great that only few women dare break out of their own social-attitude pattern. One might actually further suggest that while 'subjected' a woman need not develop much awareness of herself as a person with particular qualities, abilities or idiosyncrasies. She is thus spared the anxiety of freedom, separateness and aloneness, problems with which the more emancipated European persons still struggle—at times admitting defeat by attempting to sink once more into anonymity inside a totalitarian group, at times looking to psycho-analysis, Eastern introspective methods, etc., for help to carry the burden of the greater consciousness demanded of them.

It is thus not surprising that the Katangan woman should offer some resistance to 'progress,' even if its fruits appear in some ways tempting. Nor is it surprising that Dr. Leblanc should find that social attitudes are somewhat more flexible than is personality structure, so that in periods of social change the latter lags even further behind the former.

The problems posed in this book are interesting; the conclusions

are somewhat thin, the description of tests results excessively elaborate and detailed. What is missing is an account of the social institutions which form the background to the subjects' personalities and attitude patterns. But, and this is even more serious, we miss details, interview material or case histories of the persons whose test results the author describes in such detail. Consequently her data remain without a context against which they could be evaluated. It seems to me quite impossible to draw conclusions from any projection-test material without a detailed analysis of the life history of the subject. For without this, one simply cannot differentiate fantasy from memory, or personal symbolism from collective symbolism.

We must hope that those who will continue Dr. Leblanc's work will expand it and strengthen its methodological foundations. For the questions which she has posed are most vital.

ROSEMARY GORDON

The Plateau Tonga of Northern Rhodesia: Social and Religious Studies. By Elizabeth Colson. Manchester (U. P. for Rhodes-Livingstone Inst.), 1962. Pp. 237.

121

Price £1 12s. 6d.

This book consists of seven papers on various aspects of Tonga society previously published in a number of different journals. Apparently the author did not have the time to revise and integrate the different essays, so it is only to be expected that the book should contain a certain amount of repetition and some loose ends. Nevertheless, the reprinting of these essays in an easily accessible form is to be welcomed, especially for teaching purposes.

One wonders, however, whether all the papers deserve quite the lavish praise with which Professor Gluckman introduces them. I feel that Professor Colson is least stimulating in her first three chapters ('Ancestor Spirits and Social Structure,' 'Clans and the Joking Relationship,' 'Rain Shrines') in which she uses the Radcliffe-Brownian approach—especially when one compares them with the much more impressive analyses contained in Chapters IV, V and VI ('Social Control and Vengeance,' 'The Role of Cattle,' 'Residence and Village Stability').

Thus the first chapter, though admirably documented (65 pages), reaches the rather uninteresting conclusion that Tonga ancestor worship reflects Tonga social structure. At any rate there is little evidence in the second half of the book to support the thesis that 'among the Tonga, social structure and the cult of the *mizimu* are so intertwined that a study of one leads inevitably to the other.' The second chapter is devoted to an account of the euphoric influence of joking relationships: clan jokers, we are asked to believe, are disinterested ritual partners who restore social equilibrium and give expression to moral imperatives, while the members of the matrilineal group, bound together by 'ties of mutual support and respect,' are precluded from anything so unseemly as reproving or exerting pressure against a fellow-kinsman. But one can only doubt the value of this kind of traditional interpretation, particularly when one reads later on about the frequent dissensions among kinsmen who seem only too ready to deal severely with each other where their own interests are threatened. One would like to know, instead, the answer to such questions as whether herding arrangements might not utilize pre-existing joking relationships, thus drawing joking partners into the herding system with all its possibilities for building up personal advantage and manipulating individual alliances.

The third chapter begins with a disingenuous characterization of the Tonga as a cultural 'have-not group' (because they don't have lineages, age sets, secret societies, etc.), goes on to describe the temporary local communities that are centred on rain shrines, and concludes that this system is 'still the fundamental element in Tonga social structure,' hinting darkly that but for this there would be no continuity in the society. It is clear that in this paper Professor Colson is making the assumption that organization and structure are to be identified with enduring groups and persistent interpersonal relationships. A strict adherence to this view would merely inhibit the kind of analysis of constantly shifting relationships which the later papers in the book so successfully carry out.

As it is, it is one of the achievements of the second half of the book

that it demonstrates how far one can go if one divests oneself of some of the more restrictive ideas of Radcliffe-Brownian social anthropology. The reader who is not already acquainted with these papers will find it rewarding to follow, among other things, Dr. Colson's skilful analysis of the way in which quarrels and competing allegiances form necessary conditions of the social system—and to appreciate that conflicts and tensions are not merely unfortunate disturbances in the structure which are somehow mechanically resolvable and resolved.

TALAL ASAD

The Tribe and its Successors: An Account of African Traditional Life and of European Settlement in Southern Rhodesia. By W. Rayner. London (Faber), 1962. Pp. 239. Price £1 10s.

122

Having spent five years in the Civil Service of Southern Rhodesia, the author has set out to describe for the non-expert reader the central drama of this country: the encounter between European settlers and tribal Africa. He has read widely in the printed, secondary sources; he is a sensitive observer; and he writes forcefully and clearly.

In the first half of the book, Mr. Rayner has drawn on the writings of anthropologists to describe the 'traditional' Mashona way of life. As an historical picture it lacks focus and exactness. Especially is this so in chapter 4 where his discussion of the Mashona relationship to Monomotapa and Zimbabwe fails to exploit sufficiently the results of recent excavations and historical work. The overall impression which emerges, however, is fair and balanced. In his account of Mashona culture he has allotted what at first sight seems a disproportionate space to religious ideas and practices; but it is precisely this aspect of African life which has given rise to so many European misconceptions, and his exposition, in language intelligible to all, is a valuable piece of popularization. Taken as a whole, then, this description of pre-settler Mashonaland can be warmly commended to the general reader or student fresh to African studies.

Unfortunately Europeans in Rhodesia, who could most benefit from the first part of the book, are likely to be alienated by the second: a quick historical survey of the origins and results of European settlement. In a reaction against the laudatory, imperialistic presentation of Rhodesian history, the author has carried too far his more cynical, materialistic interpretation. In his account of European motives and actions a denigrating tone predominates and leads him at times into superficial and erroneous statements. Livingstone's policy of Christianity and Commerce earns the glib comment that 'apostolic poverty has given way, here, to apostolic shopkeeping'; Warren's establishment of British, as opposed to Boer, rule in Bechuanaland is oversimplified as the action of 'an irascible imperialist'; South Africans like 'Hofmeyer [*sic*] of the Afrikaner Bond' are accused of destroying Rhodes's early liberalism; and too much emphasis is placed on the part that the prospects of gold-mining in Matabeleland played in deciding Rhodes to destroy Lobengula.

More disappointingly, the author has but slightly illustrated the effects of European settlement on the Mashona way of life. One is given a few illuminating glimpses, but there is no sustained attempt to unite the two parts of the book, and a chance has, therefore, been lost to make a more original contribution to Rhodesian studies. Instead Mr. Rayner has used the oral tradition of both Africans and Pioneers to resuscitate some vivid details (or legends) of the early settlement; he conveys a sharp sense of the Rhodesian landscape; and even if his appraisal of the European role is unbelievably cold, this is certainly how it must appear to many Africans.

RICHARD GRAY

The Black Man's Portion. By D. H. Reader. Cape Town (O.U.P.), 1961. Pp. xv, 180, plates, tables, maps. Price £2

123

Here is part of a five-year programme of research begun in 1955 and financed by the National Council for Social Research in South Africa. The Border Regional Survey conducted by the Institute of Social and Economic Research at Rhodes University was in essence a single project, embracing four main aspects—topography, economics, Whites and Coloureds, and

the Xhosa-speaking Bantu peoples of the area. Of a three-volume complementary series edited by Professor Philip Mayer, dealing with the Bantu peoples, this, the first volume, provides a useful historical and demographic background to conditions in the Native townships of East London, wedged as it is between the Bantu homelands of the Ciskei and Transkei. It also serves as an introductory volume to the trilogy *Xhosa in Town*.

While the claim that it is the first full-scale study of an African town population in the Republic of South Africa may be allowed, it might be relevant to recall that the Non-European Affairs Department of the City of Johannesburg sponsored research projects in past decades, which were quite as comprehensive and informative as this series purports to be, and which established useful precedents and guides for future sample survey techniques of urban Bantu populations.

The three volumes, however, are a valuable follow-on to Monica Hunter's classic *Reaction to Conquest*, in which she analysed with acute perception the interaction of Xhosa-speaking tribesmen and

townsmen, life in the Native townships of East London, on the farms, and in the Native territories.

Nevertheless, Dr. Reader has carried his penetrating statistical analysis a step further in expanding, analysing and interpreting his survey data. Topics covered in the text include influx-control, the 1952 riots in the East London Bantu townships, the two Commissions appointed to investigate the 'legitimate needs and grievances' of their residents, opportunities for employment and work attitudes, overcrowding and accommodation, and living conditions generally.

This book, moreover, will be invaluable for its emphasis and reiteration of a cardinal fact suspected for some time past, namely, that non-white populations in Africa south of the Sahara have been grossly under-enumerated and/or under-estimated. This would seem further to indicate a substantial misconception of the total Bantu population in the Republic of South Africa and, undoubtedly, other African non-white populations within the various African territories.

LAURA LONGMORE

AMERICA

Cultural Aspects of Delusion: A Psychiatric Study of the Virgin Islands. By Edwin A. Weinstein, M.D. New York (Free Press of Glencoe), 1962. Pp. 215. Price \$5

124

The author served for two-and-a-half years as government psychiatrist in the United States Virgin Islands, most of his work there being done on the island of St. Thomas. He also visited mental hospitals and interviewed patients in Antigua, St. Lucia, Barbados and Martinique.

Dr. Weinstein's central thesis is that delusional systems, while they may be studied as the products of individual pathologies, are set within cultural parameters as well. Hence—as the book's title indicates—psychotics of differing cultural backgrounds will expectably manifest cultural patterning in their delusional behaviour. Since the author was able to work with Creole-speaking patients from St. Barthélemy and Spanish-speaking patients from Vieques (an islet attached politically to Puerto Rico), as well as with English-speakers from the British and U.S. Virgin Islands, he could seek to establish culturally differentiated dimensions of delusional behaviour.

The results are provocative and interesting. For instance, while British and American Virgin Island patients characteristically have delusions concerning children, these are much rarer among the 'French' and Puerto Rican groups; the 'French' and Puerto Ricans have many delusions concerning food, the St. Thomians hardly any; sexual themes figure most often among 'French' patients, most rarely among Virgin Islanders; and so on.

Yet this study leaves a very great deal undone, or done only very imperfectly. A total of 148 patients served as the basis for the author's conclusions: 68 U.S. Virgin Islanders, 22 British Virgin Islanders, 22 Puerto Ricans, 16 'Frenchmen,' and 20 'Continental' (mainland North Americans). These numbers, while they represent a very considerable psychiatric work load, provide narrow samples at best. Thus, three out of 16 'French' patients, and seven out of 22 Puerto Rican patients had delusions about food, while only six out of 58 Virgin Island patients had such delusions; and it is on the basis of these data that Dr. Weinstein contrasts food symbolism among these three groups.

Beyond this, Dr. Weinstein's reading in anthropology does not equal his interest in the field, particularly insofar as the Caribbean area is concerned. His shortcomings in this connexion are revealed particularly in the use of such terms as 'matricentric,' 'endogamous' and 'obeah' with less than ethnographical specificity.

Finally, so far as I could learn, all interviewing was done in English. The author's lack of control of the other relevant languages and, in fact, of sufficient data concerning the cultures themselves seems to have led him into certain errors. For instance, we are told that Puerto Rican '... children may be named in accordance with their looks, like "Bonita" and "Negrita"' (p. 175). Here are two names which I have failed to encounter in 14 years' association with Puerto Ricans. The use of the affectionate term or nickname

'negrita,' moreover, has nothing at all to do with 'looks,' and woe to the ignoramus who calls a negroid child 'negrita' because of her appearance! Mistakes of this sort make one more sceptical, perhaps, than is appropriate, when reading the cultural descriptions. It will be left to the linguists to comment on Dr. Weinstein's use of '... the body of theory known as the Sapir-Whorf hypothesis' (p. 24), but one cannot ignore his final admonition: 'To understand the language, one must know the stress and the culture' (p. 204). The opposite is likely to be equally true.

S. W. MINTZ

Caribbean Social Organization. Edited by Sidney W. Mintz and William Davenport. *Social and Economic Studies*, Vol. X, No. 4 (December, 1961). Mona, 1961. Pp. 380-535

125

The papers in this special issue of *Social and Economic Studies* are almost entirely concerned with the structure of the family in the Caribbean. The territories covered include Barbados, Jamaica, Haiti, Carriacou and Providencia. There is already in existence a considerable amount of material appertaining to the family in the major areas of the West Indies. Little or nothing, however, has appeared on the island communities of Venezuela and Colombia. Thus it is Mr. P. J. Wilson's contribution on Providencia, an island off the Colombian coast, which excites most interest in this symposium. The society described poses some rather special problems in that although of English and African origin, politically it is part of Colombia. While the author does not bring to light any startling departures from the expected pattern of family relationships in the Caribbean he has filled another gap in studies of the area.

The editors of this issue are to be congratulated in bringing together a most useful collection of papers for the student.

FERNANDO HENRIQUES

The Montana Cree: A Study in Religious Persistence. By Verne Dusenberry. *Acta Universitatis Stockholmiensis, Stockholm Studies in Comparative Religion*, 3. Stockholm, Göteborg & Uppsala (Almqvist & Wiksell), 1962. Pp. 280, 9 plates. Price Sw. Kr. 60

126

This is a difficult book to assess in that it has two explicit aims only one of which is seriously pursued. The first aim is to describe the contemporary religious beliefs and practices of the 'Montana Cree' and to connect them with aboriginal Cree forms. The other is to illustrate the thesis that these beliefs and practices 'integrate' the society of the Montana Cree. The author succeeds admirably in the first task but with the second he never gets off the ground.

The Montana Cree are in fact a heterogeneous group dominated by Cree elements and 'Cree-oriented' in their religion. It is Dusenberry's interesting thesis that the religious element of their culture is the only common focal point in it; that it is largely aboriginal and

not 'nativistic'; and that it is what has welded this unfortunate band together in its sufferings and what continues to integrate it today. The trouble with the latter thesis is that it is asserted rather than proved. The beliefs are outlined in admirably clear detail. They seem to stem from one or two highly articulate informants and it is difficult to know how general they are in the society, but the author is at least scrupulously honest in quoting his informant sources. The 'aboriginality' question is interesting in view of the author's assertion that this religion is not nativistic but part of a continuing tradition. But it is difficult to prove and somewhat unnecessary to the integration argument. This argument can only itself be proved by showing how the religion is institutionalized, how it is really the common factor of Montana Cree culture and how it actually 'works' in the society. This we are left to glean for ourselves. It is no good saying things like 'It is safe to generalize now that primitive belief correlates itself with the daily life of the contemporary Cree Indians. . . ' (p. 87)—a loose enough statement in itself—, if this daily life and the social structure in which it operates are not described. Dusenberry writes under the influence of Radin, Schmidt and Hultkrantz, so his inability to follow through his promising sociological line of thought is not surprising.

There is an excellent chapter on the ethnography of the Sun Dance based on the author's truly participant observation. He has rescued an interesting group of Indians from ethnographical oblivion with patience and devotion. For its cultural details alone the book is a very valuable addition to Amerindian studies.

J. R. FOX

Indian Rock Paintings of the Great Lakes. By Selwyn Dewdney and Kenneth E. Kidd. Toronto (U. P.) for Quetico Foundation, 1962. Pp. 127, 8 colour plates, monochrome illus., text figs., maps, appendices, index.

127

Sponsored by the Government of Ontario and the Royal Ontario Museum at which institution Mr. Kidd is Curator of Ethnology, this book is the first serious study of the Indian pictographs scattered throughout the primeval woodlands north of the Great Lakes. Mr. Dewdney, an artist and writer, first describes in an engaging manner the techniques of their discovery and the form and content of the works, and then discuss each of the sites. Mr. Kidd contributes a short essay on the general anthropological background of the designs. More than one thousand rock paintings have come to light; sites now number over a hundred. The majority of paintings

illustrate single forms—moose, deer, birds, human figures, canoe scenes and handprints are common—and are blocked out in red oxides on sheer rock walls usually two to five feet above the water. Though it is as yet impossible to date these pictures, studies of lichen growth and lime deposition may in the future yield some evidence of chronology. Wisely, the authors eschew any attempt to date the pictographs by style.

Some striking paintings have been discovered: one, of the Great Lynx (Night Panther) or *Mishipizhiw*, was mentioned a hundred years ago by Henry Schoolcraft, an Indian Agent; others depict bison; several pictographs are of snakes, which are in fact uncommon in the area. Certain figures are identified by the authors as the *Maymaywayshi*, hairy-faced spirit beings who live in the water, steal fish from nets and have some connexion with the sites where even today Indians leave gifts of clothing, tobacco and prayer sticks. While modern Indians can shed little light on the meaning of these paintings, there seems to be scarcely any doubt that they are, for the most part, the work of the forebears of the Ojibwa. In calling attention to these neglected achievements, Mr. Dewdney and Mr. Kidd have done both past and present-day Indians a signal service.

DOUGLAS FRASER

Incidents of Travel in Yucatán. By John Lloyd Stephens. Norman, Okla. (U. of Oklahoma P.), 1962. 2 vols. (boxed): pp. 349 and 347, many illus. Price \$15.

128

Incidents of Travel in Yucatán was first published in 1845 and was the original archaeological account of the Yucatán Maya. Today, it is still one of the best accounts and consequently for many years it has been impossible to purchase a copy, despite the numerous editions that were produced up to the turn of the century.

A large number of Americanists will therefore welcome this new edition which contains Frederick Catherwood's beautiful and accurate engravings, together with a very fine introduction by the editor, Victor Wolfgang von Hagen. This book is virtually unchanged from the original publication, apart from some Spanish words that have been corrected, and the plates which have been grouped rather than scattered throughout the book.

This is still a wonderful book to read and Stephens' prose is as charming and unaffected as it was when he wrote it over a century ago.

D. H. CARPENTER

ASIA

The Apa Tanis and Their Neighbours: A Primitive Civilization of the Eastern Himalayas. By Christoph von Fürer-Haimendorf. London (Routledge & Kegan Paul), 1962. Pp. x, 166, maps, illus. Price 16s.

129

This is the first in a new series of texts called 'Societies of the World,' edited by John Middleton, which is intended to meet a need for short and up-to-date socio-anthropological studies of single societies and of clusters of related societies.

Professor von Fürer-Haimendorf describes Apa Tani society, in the North-East Frontier Agency area of India, with comparative observations on the neighbouring Dafla and Miri. His chapters cover the utilization of natural resources, trade and barter, social structure, the position of slaves, family life, the maintenance of law and order, relations with neighbours, and religion and the moral order.

The Apa Tani are of singular interest, and although it may seem disproportionate to devote so many as 48 pages to economic details the account is clear and comprehensive, giving a convincing impression of the circumstances of their social life. It may be regretted, however, that neither in the chapter on 'social structure' nor elsewhere in the book are the terms of the descent system reported. To list them would hardly have overloaded the text with vernacular words when frequent reference is already made to *mite*, *mura*, *buliang*, *kenna*, *halu*, *nago*, *lapang*, *lemba*, *patang*, *penam mura*, *hipa* and *niubu*—all of which are likewise terms of social classification

yet hardly (one would think) of such generally elucidative importance as the categories of agnation, affinity, etc. Moreover, the terminology might have enabled one to interpret more clearly the statement that neither patrilineal nor matrilineal cross-cousins are eligible as marriage partners but that a man may nevertheless marry a girl of his mother's clan if no consanguineous link can be traced, or that the prohibition on cross-cousin marriage suggests the recognition of the 'female descent line,' observations which in a work of social anthropology might well have been elaborated.

The author modestly declares his relative ignorance of Apa Tani religion and cosmology, but his chapter on these matters contains some fascinating indications of cosmic dualism which deserve special notice. The oppositions of sky/earth and underworld/underworld are unexceptional, but it is remarkable that according to the Apa Tani it was a goddess, Didun, who made the sky, while a god, Chandun, made the earth. Correspondingly, the souls (*igi*) of the 'bad dead' go to Talimoko, the underworld, while the souls (distinguished as *yalo*) of the 'good dead' go to Neli, the underworld. It is consistent, furthermore, that all the deities listed from the Apa Tani pantheon are bisexual couples. By a comparison of the Apa Tani and the Dafla, Professor von Fürer-Haimendorf interestingly poses the question whether an ideology may be independent of the social order, but these facts lead one to conjecture whether a structural analysis in terms of complementary dualism might not disclose a degree of correspondence which his narrative

does not display. To investigate this possibility would further necessitate a detailed exposition of the categories and principles of the descent system, and this might seem an inappropriate exercise in an elementary text, but if the new series is to sustain the student's interest in social anthropology then a more analytical approach of such a kind may be called for.

The inevitable reservations made, it is fortunate that the series should be inaugurated with a work by an anthropologist of Professor von Fürer-Haimendorf's experience and stature, and with societies as distinctive and as carefully investigated as the Apa Tani and their neighbours.

RODNEY NEEDHAM

Economic Development and Social Change in South India.

By T. Scarlett Epstein, *Manchester (U. P.)*, 1962. Pp. xvi, 353, 9 plates, 3 maps, 50 tables. Price £2 2s.

130 In addition to its interest for Indianists, this book makes important contributions to economic anthropology, applied anthropology and comparative method. The author is both a trained economist and a trained social anthropologist. Her units of comparison are two villages in the plains of Mysore in South India. Both villages have been subject to the impact of economic development chiefly through a government-sponsored irrigation scheme, but the changes brought about by this development have been very different.

Wangala is in the irrigated area, and the change from dry to wet farming has brought a change from a largely subsistence to a largely cash economy. Yet there has been little re-allocation of economic resources, and little alteration in economic and social roles and relations. Dalena, the second village, is on the edge of the irrigated area and has not benefited directly from irrigation. Dry farming is still practised. Instead of turning inward to more intensive agriculture as the people of Wangala have done, Dalena men have had to turn outward to the wider economy of the region. This has brought an increased range of economic relations and radical changes in the social system of the village.

The contrast between the two villages is not so much between 'wet' and 'dry' agricultural economies as between single and multifarious courses of development. The single line of development typified by Wangala the author calls 'unilinear.' This is an unfortunate term not only because of its kinship connotations in anthropology, but because it oversimplifies the changes which have occurred in Wangala which are clearly along more than one line. Though both villages are assumed to have started with basically similar economies and social structures, this is not a 'before and after' or 'culture contact' study. It is rather a comparative synchronic study of two varieties of development and its importance lies in this and in the controlled and rigorous way in which the comparison is made.

The emphasis of the book is on economic organization. There is a growing trend for anthropologists to back up their generalizations with statistical data. Such data are particularly relevant to economic anthropology and are to be found in abundance in this book. They raise general questions about the kinds of statistics which an anthropologist should collect and the amount of time that he should allocate to their collection.

The author takes economic facts as the determinants of other social changes. Yet the analysis of political organization and social organization (a somewhat residual category in which the author includes caste, ritual, family structure and prestige factors) shows that a simple economic determinism is of limited value in predicting the nature of accompanying social change. One might have expected, for example, that there would be a greater change in the position of women in outward-looking Dalena than in 'unilinear' Wangala, but in fact the reverse is the case. One might have expected that a Dalena man working in the town, an occupation of high prestige, would attempt to enhance his status in the village by stressing urban values, yet we find a factory worker raising his status in Dalena by becoming a medium, a traditional role which carries no particular prestige in inward-oriented Wangala. Such examples and the discussion of what the author calls the two principles of cultural change—cultural inertia and the reinterpretation

of new elements to fit in with existing behavioural patterns—show the relevance of an anthropological perspective on economic development.

BURTON BENEDICT

The Income of the Chinese Gentry. By Chang Chung-li. *Seattle (U. of Washington P.)*, 1962. Pp. xvii, 369. Price \$7.75

131 This is a continuation of the author's earlier study *The Chinese Gentry* (Seattle, 1955), in which he attempted to define the 'gentry' class in terms of the *shen-shih*, the holders of degrees obtained through the imperial examination system, who had thus formalized their status as members of the educated élite from whom serving officials were recruited. The status of graduate carried with it various privileges, and the graduates fulfilled a variety of special social functions which made them a group apart. However, the definition of the gentry as degree-holders is by no means universally acceptable.

In particular this definition raises a peculiarly intractable problem in the relationship between the degree-holders and the broader class of educated and comparatively prosperous land-owners and businessmen from whose ranks they originated and with whom they were intimately linked by the powerful ties of family and lineage organization. There was without question a broad social stratum which tended to supply a high proportion of the degree-holders, whose families saw themselves as a clearly identifiable group within which the *shen-shih* formed the élite whose abilities had been officially recognized. It was to this group of influential families that authors usually attach the term 'Gentry.'

This definition in particular bedevils any attempt to describe the economic basis of the gentry class. In the present volume Dr. Chang again limits himself to a discussion of the *shen-shih* graduates. Not unnaturally, his conclusion is that the chief sources of income for graduates were official emoluments and the various secondary sources of income which office provided, followed by secretarial and teaching services, where a high level of formal education was at a premium, and what the author calls 'gentry functions'—a term embracing such income as fees from settling disputes and the profits from managing local projects of various types on behalf of the authorities—where the graduates acted as intermediaries between the local officials with whom they alone could freely associate and the populace.

On the other hand Dr. Chang considers that the income which they derived from investment in land and from mercantile activities was comparatively limited, though still important. The new evidence which he provides is persuasive and impressive in its bulk. It does not, however, as the casual reader may assume, undermine the widely accepted image of the Chinese 'gentry' as an amalgam of 'landlord-official-merchant-usurer.' Dr. Chang is discussing a more limited group than the gentry as commonly defined, a group based upon the possession of the formal status which gave direct access to these more specialized sources of income. The problem of the sources of income of the prosperous non-graduates remains, and here undoubtedly landholding, usury and trade were predominant.

I have spent some time in pointing out the limitations of the author's approach, because these may not be immediately obvious to the non-specialist reader. However, I would stress that this is a very important book. The range of source material which Dr. Chang has combed is enormous, and he prints a very large number of translations of texts. In particular there are almost a hundred pages of summary biographies of gentry members taken from various local histories illustrating his various points. This book does attempt, for the first time, to collect concrete quantitative data about the income of the gentry in place of the usual impressionistic generalizations, and incidentally provides much new light on the functioning of the Chinese state and its interaction with local society. In the author's own limited terms, which he clearly defines, he presents a very strong case, even though some of the statistical analyses, as in the previous volume, seem based on such fragmentary data as to make their general application dubious. The only part of the book which seems to me almost entirely conjectural is the two supplements in which Dr. Chang attempts to estimate the gross national product of China in the eighteen-eighties.

D. C. TWITCHETT

EVIDENCE OF EARLY POPULATION CHANGE IN CENTRAL AND SOUTHERN AFRICA: DOUBTS AND PROBLEMS*

By D. R. Brothwell, Sub-Department of Anthropology, British Museum (Natural History)

132 Skeletal studies, whether of recent or ancient human populations, are undergoing gradual but definite transformation. Until more is known of the genetic background, growth differences determining size and shape variations and the possible selective value of some morphological differences, it must be understood that most conclusions can only be tentative.

The problem of the analysis of central and southern African skeletal material is tripartite:

- Generally there is inadequate dating evidence.
- All too often the remains are fragmentary, and the samples too small.
- Often the morphological features used in determining group affinities are rather subjective, and for the moment even statistical analysis of well defined measurements must depend upon an appreciation of skeletal differences between modern Khoisan and Negro groups.

Of these setbacks to an ideal analysis, probably (b) is by far the most serious.

A comparison of fairly large series of skeletons is a very different matter from comparing individual or a few skulls or other skeletal fragments. In the case of specimens showing considerable morphological differences, such as the Boskop^{1, 2, 3} and Rhodesian^{4, 5} skulls, the sum total of their differences is so great that separation into two distinct categories of man is justified. However, in the case of minor variations and small samples the problem is considerable. In such circumstances, how can one reasonably differentiate between family and small-isolate-group features and those typical of the regional population as a whole?

Differences in skeletal morphology (especially in the skull) are certainly to be found in modern Negro and Khoisan (that is Hottentot and Bushman) specimens, but these 'anthroposcopic' and anthropometric features may be quite subtle. All series of skeletons, however homogeneous the populations which they represent, display much variability (and if one looks hard enough, apparently 'mongoloid' or 'negroid' features may be discovered in, say, a European series). In the case of earlier populations we do not of course know the extent of the skeletal variability, or what 'forms' it took. Moreover, and this is so often forgotten, it is not known in what physical 'directions' the earlier groups diverged without skeletal remains having been discovered. Thus comparison of available early forms with the restricted modern varieties may unintentionally bias an assessment of the affinities of the latter. To give a theoretical example, it is not beyond

the bounds of possibility that genetic drift and selective pressures acting on the 'gene pool' of a proto-Negroid population might have resulted in certain Khoisan features evolving in the skull; but without knowledge of these circumstances a true assessment of such skeletal material today would be most difficult.

Of the finds in Africa considered (not necessarily by me) to have some value in determining the physical history of southern groups, the following published specimens are especially important.

SUDAN. *Singa* (Blue Nile). 'Middle Stone Age.' Skull vault but no face or mandible. It was originally thought to be 'Bushmanoid' in affinities^{6, 7} but a recent re-examination casts doubt upon this.⁸

NYASALAND. *Hora Mountain*. Late Stone Age. Two skeletons.⁹ Wells concludes that these 'Nachikufans of Hora included a very strong element of the East African "Erythriote" stock, mingled with Bushman and probably also with Negro' (p. 184).

NORTHERN RHODESIA. What few remains have been discovered in this area have been reviewed in detail by Professor L. H. Wells^{9, 10} with additional more recent data on the Chipongwe people by Toerien.¹¹ The dates and affinities of these specimens may be noted as follows (slightly modified from Wells, 1950).

Type	Site	Age
Negro-Bush	Mumbwa	Iron Age
East African 'Caucasoid'	Mumbwa (IV3)	?
Bushmanoid	Chipongwe	?? Late Stone Age
Bushmanoid	Maramba	Middle Stone Age
Bushmanoid	Mumbwa	Middle Stone Age
<i>Homo rhodesiensis</i>	Broken Hill	(? early) Middle Stone Age

SOUTHERN RHODESIA. (a) *Bambandyanalo* (c. A.D. 1055 on C14 date). Galloway¹⁴ has made a detailed study of 40 of over 70 skeletons now excavated from this site. The majority of distinctive features were considered to be 'Bush and Boskop', there being an almost complete absence of unequivocal Negro traits. The stature of this group (as revealed by three males with the values 5 ft. 5½ in., 5 ft. 4½ in. and 5 ft. 10 in.) was moderate. Mean cranial capacity may well have been above that for modern Khoisan and Negro groups (two males had capacities of over 1360 cc.).

(b) *Mapungubwe* (c. A.D. 1400 on C14 dates). Remains of eleven individuals were also examined by Galloway.¹⁵ He considered these people to be a 'homogeneous Boskop-Bush' (p. 162) group, although a few 'non-African' and Negro traits were noted.

Because of the continued controversy over the use of the terms Boskop and Boskopoid,¹ I think it clear and sufficient to say that as late as the sixteenth century A.D. in Southern Rhodesia a pre-Negro fairly large Khoisan type had persisted, at least in some parts.

TRANSVAAL. (a) *Boskop*.^{1, 2, 3} Fragmentary skull of very doubtful Middle Stone Age date. It is clearly large Khoisan in type.

(b) *Tuinplaats* (Springbok Flats).^{16, 17} Parts of a skeleton of doubtful Middle Stone Age date. Not clearly of Khoisan type.

NATAL. *Inguavuma*. Skeletal fragments include part of an adult skull, of Middle Stone Age date¹⁸ ('Second Intermediate Period'). Wells suggests that it is best regarded as intermediate in position between the Florisbad and Skildergat (Fish Hoek) types.

ORANGE FREE STATE. *Florisbad* (associated C14 dates of 35,000 years, 41,000 years and 44,000 years). Parts of the face and skull vault of an adult. Discovered by Dreyer in 1932, and described by him as a very early and very primitive representation of the Bushman stock.¹⁹ A more reasonable view would seem to be that it is

* This review formed the basis of a Seminar organized by Dr. Roland Oliver, School of Oriental and African Studies, London, and held at the Institute of Commonwealth Studies on 31 October, 1962. A similar communication was also made at the December meeting of the Society for the Study of Human Biology, held in the Anatomy Department, University College, London. With two text figures

another example of the robust 'indigenous' stock preceding early Khoisan movements into Southern Africa. (Since completing this note, I have had an opportunity to read the extensive compilation and analysis of fossil man by Coon.²⁹ After considering the stratigraphical, radiocarbon and paleobotanical evidence, he concludes that 'the Florisbad skull could have dropped down the eye of the spring as late as 7,000 to 5,000 B.C.' (p. 644). If the latter time range is indeed now most probable then it would seem far more likely that the skull belongs to a robust early Khoisan individual (?? hybrid). It seems impossible to avoid both interpretations until the dating of this fossil is more fully established).

CAPE PROVINCE. (a) *Cape Flats*. (Probably Late Stone Age.) Remains included much of an adult skull, including face and mandible. Originally considered by Drennan²⁰ to display both European and Negro characteristics, but probably to represent a pre-Bushman and pre-Negro type.

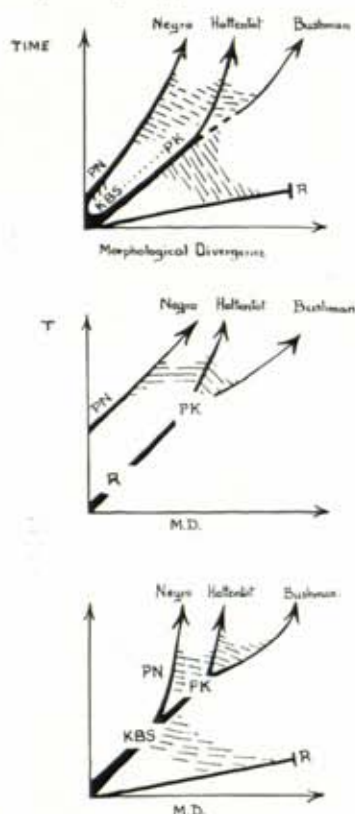


FIG. 1. MAJOR ALTERNATIVES IN THE ORIGIN OF MODERN KHOISAN GROUPS

KBS = Kanjera-type basal stock. PK = Large Proto-Khoisan varieties. PN = Proto-Negro types. R = Rhodesian-Saldanha stock. Broken lines indicate that hybrids are likely to have occurred.

(b) *Matjes River*. Remains of human skeletal material at four levels (and ranging from recent to approximately 10,000 B.P.).²¹ Layers A, B and D contain individuals of Khoisan affinities, but Meiring²² supported by Louw²³ considers that the people of Layer C (c. 5,000-7,000 years B.P.) are not clearly of Khoisan type but may be hybrid (? with the north-east African 'Erythriote' stock). Further analysis of this material is much needed.

(c) *Skildergat* (Fish Hoek). Terminal Middle Stone Age (Howieson's Poort Industry). A complete skull and parts of the postcranial skeleton of an adult. It has noticeable Khoisan affinities.²³

(d) *Zitjikama*. Skeletal material from two definite layers in the rock shelters.²⁴ All are as yet undated but are probably Late Stone Age. Six incomplete skulls from the deeper levels clearly belong to a large Khoisan variety.

Conclusions to be Drawn from the Skeletal Evidence

1. The material at present available for study is too inadequate to justify more than a very tentative and broad reconstruction of the pattern of physical change in the earlier populations of central and southern Africa.

2. Various alternatives demand consideration as regards the evolution of the modern Hottentot-Bushman groups. These are given in fig. 1.

3. In my opinion, the sequence of events which most closely fits the fossils at present available is shown in figs. 1c and 2. As Wells¹⁰ has suggested, the East African

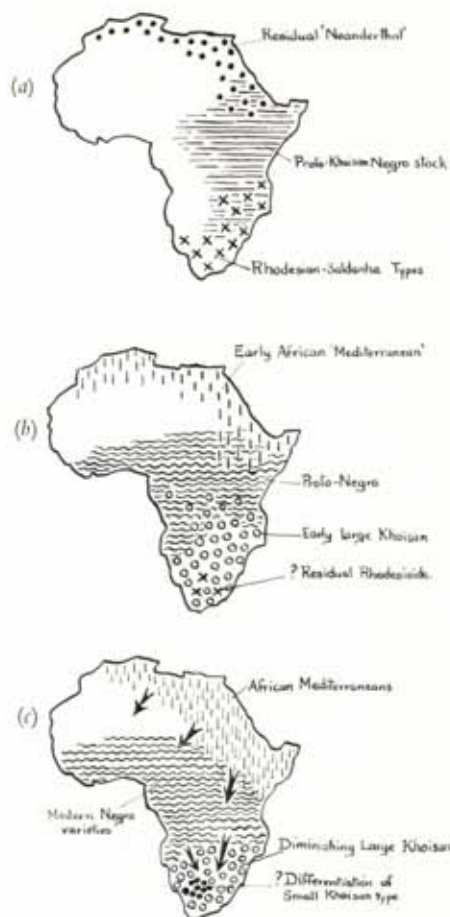


FIG. 2. TENTATIVE SEQUENCE OF PHYSICAL CHANGE IN AFRICA
(a) Before 25,000 B.P. (b) Before 10,000 B.P. (c) By c. A.D. 1000

Kanjera type represents the earliest form of man so far known in Africa which could provisionally be regarded as representative of a basal stock from which a large Bush type might have originated. During the movements of the latter southwards it seems reasonably likely that various proto-Khoisan varieties became differentiated (there must have been at least 10,000 years for 'sub-races' to form). As yet there is no evidence that the markedly pygmy Bush variety known today evolved early (and perhaps the modern pygmy form is a fairly recent specialization to a now restricted desert environment).

4. As there is no evidence that the robust Rhodesian-Saldanha population had died out before proto-Khoisan differentiation, 'morphological extinction' may have resulted to some extent through interbreeding (and would explain the robust part-Bush forms).

5. Although on the basis of skeletons there is no good evidence of Negro population movements south of the Zambezi until after the thirteenth century A.D., the material so far available is too small and fragmentary to offer any clear picture of physical change. The likelihood of far more skeletal material being discovered in the Rhodesias in the near future is thus likely to be of critical importance. It must be emphasized that early Negro-Khoisan contacts seem very likely to have produced varying degrees of hybridization, the overall affinities of such groups with one or the other 'parent' groups depending upon the relative proportions of each of them. Thus it is not inconceivable that an early Khoisan (Hottentot) people might have taken over the culture (and perhaps even the language) of an adjacent Negro group as well as completely assimilated a number of Negroes into the group; yet morphologically, the skeletons of such a group might show clearly only Khoisan traits. In view of such problems, neither Bambandyanalo nor Mapungubwe samples can be regarded as ideally large enough, and far more detailed analyses of this material (employing multifactorial statistics) are urgently needed. Indeed, the South African material as a whole is worthy of no less statistical attention than that given to the Jebel Moya remains from the Sudan.²⁷ Such work, alas, would also demand a critical re-appraisal of skeletal variability in a variety of Negro populations, as well as in north-east African groups which display 'Erythriote' or 'Caucasoid' affinities. The possible physical influence of such non-Negro elements, especially in southern coastal trade areas, certainly cannot be overlooked.

6. It is extremely debatable whether the variety of classificatory terms used in discussing early southern African skeletons, such as Pygmæo-pædomorph, Gigantopædomorph, Proto-Australoid, Boskopoid, Bush-Boskop, and Gerontomorph, lessen or increase the confusion (for comments on most of these terms, see Tobias^{25, 26}). The more terms which are employed the more it is necessary to justify and define precisely their meaning. As regards the association of the concept of pædomorphism with certain Khoisan features, I find myself in sympathy with Professor William Howells when he writes: 'Since these are the proportions seen by infants, the Bushmen look infantile. But I object to calling all this "pædomorphism," suggesting an actual infantilizing process, or the retention by some special biological process of a more infantile stage of development . . . I believe that reduction may occur, both in general size of the skeleton and skull, and in particular features, like the brows, or the face, by small-scale evolution or natural selection of some kind, without any special process of infantilizing. Probably the infantile appearance is coincidence, flowing from the proportions' (p. 309²⁸). It would seem quite adequate for the present, and in view of the very limited material, to employ only

three basic terms; namely, Rhodesioid, Khoisan and Negro. From these, the following simple classifications can be devised for southern African specimens.

Rhodesioid (Broken Hill, Saldanha).

Large Khoisan (Skildergat, Bambandyanalo, Mapungubwe, Chipongwe L.S.A., Maramba, Zitzikama, Mumbwa ?M.S.A., Boskop, Matjes River A, B & D, ? some modern Hottentots).

Rhodesioid/Large Khoisan (? Ingwavuma, ?? Cape Flats, ?? Florisbad).

Negro (recent 'Bantu,' ?Congo intrusive elements).

Negro/Large Khoisan (Kalomo, ?Mumbwa I.A., ? Tuinplaats).

Small Khoisan (recent desert Bushman).

Non-Negro/Non-Khoisan elements (?Mumbwa IV3, ?? Hora Mountain, ? Matjes River C).

7. Finally, it may be mentioned that although both linguistically and material-culturally the Hottentot and Bushman groups are very clearly differentiated, their physical similarities—as shown for example by blood-group frequencies, pigmentation and general morphology—justify the supposition that both may well be derived from the Large Khoisan varieties exemplified in excavated skeletal material.

This note will have served its purpose if it stimulates further comments on this most difficult aspect of early population change. Although my own experience of human skeletal variability is mainly the result of studies on North African and European series, I make no apologies for this intrusion into the realms of South African prehistory. The area may be different, but the problems of analysis are much the same the world over.

Acknowledgments

I am most grateful to Professor C. S. Coon and Professor J. Desmond Clark for reading this note and offering helpful comments.

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RECENT EXCAVATIONS AT MAGOSI, UGANDA: A PRELIMINARY REPORT*

By Dr. Merrick Posnansky, *British Institute of History and Archaeology in East Africa*, and Dr. Glen H. Cole, *University of Chicago*

Introduction

133 In 1962 at the suggestion of the British Institute of History and Archaeology in East Africa a group of African and European schoolboys and boys from industry in Britain known as the Brathay Exploration Group set out to relocate the type site of Magosi, originally discovered in 1925 and excavated by Mr. E. J. Wayland in 1926 (Wayland and Burkitt, 1932). As it turned out they discovered a new site (Magosi 2) which contained in the upper layers a Wilton industry with pottery and a ground stone axe. Unfortunately Magosi is situated in Karamoja (fig. 1) in the dry north-east of Uganda, a dis-

went up to Magosi and continued excavations. During a visit by Professor Desmond Clark of the University of California and Dr. W. W. Bishop of the Uganda Museum the original Magosi site (Magosi 1) was rediscovered and Dr. Cole, who is at present on a National Science Foundation Fellowship, put down a trial trench parallel to the main trench of Mr. Wayland's excavation. Of particular interest was the discovery on the rock overhang of paintings similar to those previously found in Uganda (Posnansky, 1961). The paintings, it would seem from the 1962 excavation undertaken by Posnansky at Nyero in Teso District, must fall within the latter half of the present millennium. The site provides the most northerly instance of these abstract and geometric paintings, in which concentric circles predominate, in Uganda.

Both the sites occur as shelters under overhanging rocks in a granitic inselberg (2° 55' north and 34° 31' east) in the rocky Magoth hills (fig. 2). The rock surface opposite to the overhang is potted with natural cisterns one of

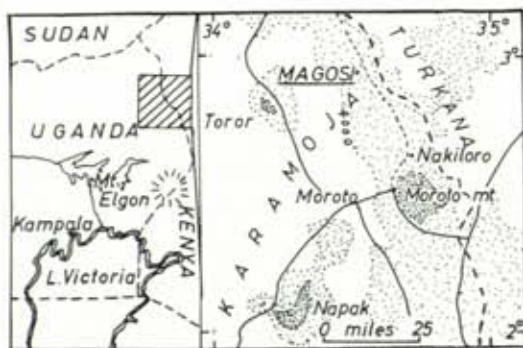


FIG. 1. LOCALITY MAP

turbed area where cattle-raiding by Kenya Turkana tribesmen still takes place, and after two days the trial trench had to be abandoned owing to Turkana activity. The material found by the group was of such interest, and appeared so very different from that of the type site, that it was decided to continue the excavation on a larger scale in 1963.

In late February and early March the British Institute

* With three text figures



FIG. 2. THE MAGOSI INSELBERG WITH ROCK SHELTERS 1 AND 2 INDICATED

which is some ten feet deep and over 40 feet long by 12 feet wide, with clear water in what is otherwise a relatively dry area (approximately 20 inches annual rainfall).

The Excavations

Magosi site 1. An 18-foot-long step trench was excavated roughly at right angles to the rock face about 21 feet from what appeared to be the north-west edge of Wayland's Test Hole 1 (Wayland and Burkitt, 1932, fig. 1). In the time available, it was possible to excavate completely only portions of the trench. Most of a sterile, reddish loam or 'brick earth' overlying the steeply inclined artifact layers was removed. Pits at the head and midway in the trench were taken to bedrock while excavations at the end abutting against the rock overhang just reached or went slightly into the uppermost artifact layers (fig. 3).

The situation in the new excavations closely parallels

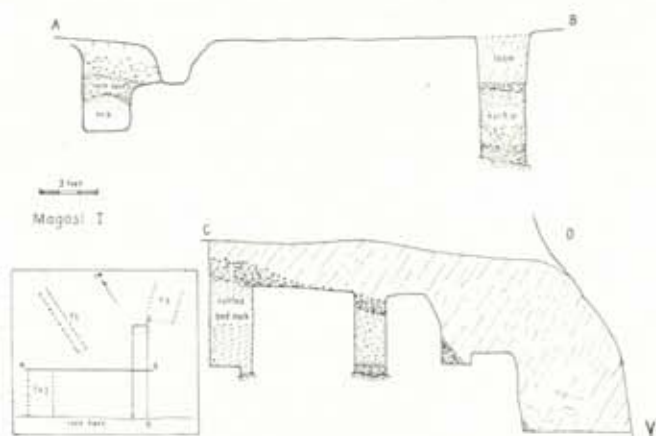


FIG. 3. EXCAVATIONS AT MAGOSI I

The plan (inset) indicates the position of the new trench in relation to Wayland's original excavations (dotted lines, see Wayland and Burkitt, fig. 1). The ditch near A was cut by water flowing from the drip zone into TH 1.

that described by Wayland save that a layer with fairly abundant microliths and pottery lies over the kunkar zone which formed the top layer in the original excavation. This kunkar zone dips rather steeply to the south-east and appears at appreciably greater depth in the new excavation, its bottom midway in this trench being some four feet lower than it is at the head of Wayland's test hole, the two points being at the same distance away from the rock face.

Three stratigraphic layers could be followed in excavation: (1) a top, non-calcified layer, (2) the kunkar zone, nearly three feet thick in mid trench (but missing altogether at its head where a thick zone of rotted bedrock occurs instead), and (3) a non-calcified 'rock sand' between the kunkar and bed rock. There is reason to suspect that the kunkar nodules were not formed in their present situation but are derived from upslope (north-west). Apart from pottery, the artifacts of the top layer are mostly of quartz although a fair amount of chert and

jasper is in evidence. A much higher proportion of the latter materials is worked into geometric microliths whereas more of the quartz artifacts, which are not merely waste material, occur as very small quadrilateral and irregular flakes. The artifacts of the kunkar zone are rather less abundant than in the top layer, chert and jasper are not quite as common and no pottery was noted during the course of the excavations. Also, microliths are quite scarce, only a very few crude crescents having been noted. All points seen during the excavations derived from this layer. Mean quadrilateral and irregular flake size is noticeably larger than that of the upper layer. The bottom 'rock sand' contains abundant artifacts, again very largely of quartz, which do not obviously differ from those of the kunkar zone save that no points were noted.

In addition to the natural stratigraphy, the upper non-calcified layer and the kunkar zone were amenable to arbitrary sub-division. On the basis of impressions gained during excavation and very cursory subsequent examination of a small part of the recovered artifacts, it is suspected that analysis will reveal a sequence comprising an earlier non-ceramic industry with only a very small microlithic component and a later microlithic with pottery. Although it may prove to be possible to distinguish an intermediate, non-ceramic, microlithic industry (certainly pottery was much less abundant in the lower portion of the top layer), at the present stage of investigations it seems more likely that a gap exists between the two. It is quite possible that Dr. Posnansky's nearby excavations will serve to fill out this sequence as well as supplement its later phases. G.C.

Magosi site 2. Two trenches (I, 15 x 4 feet; II, 24 x 4 feet) were excavated at right angles to the large overhanging rock. Both were taken down to the natural consisting of rock sand above rotted granite rock. Both trenches suggest that the site was originally an excavated solution hollow, as Wayland (Wayland and Burkitt, 1932) has postulated for Magosi 1, with its greatest depth (eight feet of deposit) towards the rock face. Twenty feet away from the rock face in trench II the bedrock was reached at a little under three feet.

From both excavations very large numbers of artifacts were obtained. Definite layers were for the most part difficult to differentiate and material was found throughout the deposit though the greatest quantity was some six to 12 feet from the rock face. Quartz, chert, chalcedony, jasper in various colours and an occasional pebble of obsidian were used for raw material.

The upper layers (upper two feet) contained a typical Wilton industry with microliths, including a large number of crescents; pottery; ostrich eggshell with just a few beads; a large number of hammer stones or in some cases pestles or mullers; perforated stones and the broken ground stone axe.

The middle layers (lower two feet of trench I and two to four feet in trench II) contained rather less pottery and ostrich shell but a single pottery bead, a number of pieces of haematite, perhaps brought in for ochre-grinding, some red ochre 'pencils' and several pestles, hammer stones, a partially bored stone and a small shallow mortar. It was

noticeable that the stone industry was more varied, with very finely made thumb-nail scrapers, which were rare in the upper layers, several scrapers on ends of bladelets, burins, awls and a wide variety of microliths in which the small beautifully made crescents were prominent. A single bifaced lanceolate point, approximating more to those of the Doian Culture of the Horn of Africa than to the Magosian, was also included in the industry.

The third layer, which occurred only in the bottom foot of the deposit of trench II, directly above the rock sand, contained no pottery, ostrich eggshell or pestles and hammer stones. The number of artifacts was much smaller than in the previous layers and the number of implements proportionately less. A unifacial point of jasper and a little unifacially flaked disc were found. The few microliths were much larger than those of the upper layers and flakes and flake blades were numerically more important and larger in size.

Discussion

The two excavations have provided material for a detailed study of the Late Stone Age sequence at Magosi. The sequence would appear to comprise part of the Second Intermediate and the whole of the Late Stone Age, the end of which possibly here dates to quite a recent period. Charcoal samples were obtained from the upper layers which should provide dating evidence for the later part of the sequence.

The interest of the excavation, beyond clarifying the stratigraphy at a most important African type site (Magosi 1), lies in the statistical study of the Magosian and Uganda Late Stone Age industries that will be afforded by the abundant material excavated. It would appear that the type collection as described by Clark (1955) was a mixed

Magosian-Wilton collection in which the proportion of quartz artifacts was significantly smaller than would actually appear to be the case at Magosi 1. The undoubted association of a Wilton industry with a ground stone axe and bored stones was established. This is the first time that the association has been demonstrated in East Africa. A bored stone and stones with partly pecked-out beginnings of perforation were found even in the earlier Wilton layers. At present no direct point of comparison exists with any known pottery from East Africa, though channelling, herringbone, comb decoration, nicked rims, dotted incised lines and thumbnail impressions all occur. The bulk of the pottery was in small pieces so that pottery forms are difficult to assess. It is significant that no glass beads were found.

Within the immediate area of Magosi a handaxe, several broken bored stones and an abundant scatter of Late Stone Age *débitage* were recovered from the surface. The multitude of unexplored shelters in the granitic inselbergs and the previous rich finds of Middle and Late Stone Age surface material (Posnansky, 1962) from Karamoja and Turkana would suggest that the area will provide a rich field for further reconnaissance. M.P.

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PROCEEDINGS OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

Dr. Margaret Murray's Hundredth Birthday

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On 13 July Dr. Margaret A. Murray attains her centenary, and is thus the only Fellow of the Institute to do so within living memory, if not in its whole history. The President and Council of the Institute have asked the Honorary Editor of MAN to convey to her their most cordial congratulations, their thanks for her manifold contributions to the enlivening and advancement of the anthropological sciences, and their hope that she will live for many more years in the vigour which she still enjoys. The Honorary Editor is indebted to Mr. G. A. Wainwright, her former colleague in the school of Sir Flinders Petrie, for the following tribute:

'Miss Murray, as she then was, and has remained to her old friends, came home from Calcutta when her father died. On the voyage someone congratulated her on her opportunity of attending the lectures of Professor Petrie—a man of whom she had never heard. She did, and became so thrilled that she spent all her time helping him in the English part of his work. In due time University College took her on the staff at a stipend of a few pounds *per annum*. This led her on to lecturing up and down the country which brought her many friends.

'Besides the archaeology which she was learning from Petrie, she studied the hieroglyphs under Dr. Walker and later on under Sir Alan Gardiner. She also worked much with Dr. C. G. Seligman, who was often about University College at that time. As

Petrie's school increased, she "brought up," as it were, almost the whole of the next generation of archaeologists—Mackay, the Bruntons, Engelbach and to a considerable extent myself. There was also Myrtle Broome, the artist, who later joined Miss Calverley in copying the Seti temple at Abydos.

'She was an ardent feminist and anything connected with women in Egypt specially interested her. Her study of Hatshepsut's divine birth led to an improbable result, and it is that for which she is so well known outside Egyptology. She began to see the meaning of divine kings and the very primitive religion in which the theory was based. She found so much evidence in the ancient pre-Christian religion of mediaeval Europe, which we know as witchcraft, that in the end she had practically given up Egypt for that study; by it she has resurrected from oblivion a whole and almost world-wide religion. She found that the witches specially favoured a certain set of names, very common ones being Margaret and Alice—a fact that led to much chaff from old friends to the effect that she was the very woman to study what to the modern world is such a strange phenomenon.

'Following in Petrie's footsteps she has always been very great on not just accepting what others had said about something but on looking for yourself to see whether it was so or not. She opened people's eyes to many unsuspected points of view, and shocked many of those comfortably wrapped in their cocoons of unquestioning orthodoxy.'

SHORTER NOTES

The 'E-Unoto' Ceremony of the Masai. By Lord Claud Hamilton. With three text figures.

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The cycle of ceremonies connected with the forming of a Masai age set starts with that known as *em-polosata*, performed by the members of the age set immediately senior to the existing warrior set. These members are destined to become the instructors in tribal lore of the youths who are about to comprise the new age set. *Em-polosata* is followed by *en-dungore* which marks the end of the current circumcision. These two ceremonies are followed by a four-day dance of the initiates-to-be called *en-kipaata*; and the circumcision of the new age set is carried out over the next three to four years, the youths being 14-17 years of age. Each generation is divided into Right Hand and Left Hand circumcisions; the latter begin their ceremonies about six to seven years after the former, but both cease to be warriors at the same time.

Seven years after the beginning of their circumcision, the members of the Right Hand Circumcision become senior warriors through the *e-unoto*. This ceremony, which is part of the age-set institutions, is held about every seven years, when an age set of junior *muran* (warriors) feels that it is sufficiently strong and mature to graduate into senior *muran*, and so 'push' the next senior warriors of the previous age set up into adult manhood. The word *e-unoto* is derived from the verb *a-un*, to plant upright or set up (i.e. a new age set of senior warriors is 'set up') and, as will be seen below, certain things are ceremonially 'set up' in the *manyata* (warriors' kraal) where the ceremony is held.

Tribal elders choose a site for the ceremony, and there the *muran* who are to take part, aided by their mothers and girl friends, build a new kraal. Each young man has his own hut, a long, low building of withies, mud and cow dung. These are built in a circle, facing inwards. At night branches are pulled into the gaps between the huts to keep out wild beasts which might prey on the cattle sleeping in the arena encircled by the huts.

Besides choosing the site, the elders also select 49 *muran* from those about to take part in the ceremony. These 49 'pure ones' as they are called must be young men of good character, 100 per cent. full-blooded Masai and without physical blemish. Their leader, the *Ol-Otuno*, is chosen secretly and is not told of his appointment until the ceremony is due to start. Every *muran* dreads being called upon to fill the position for the *Ol-Otuno* is regarded as a scapegoat for the misdeeds of his fellows. They believe that if he dies young as a sacrifice for their sins, they will live long and prosper.

After the other huts have been built, the mothers of the 49 'pure ones' build the sacred hut called *O-Singira*. This is a round building, also made of branches, mud and cow dung, topped with a conical roof of the same materials. Around its base is laid a circle of bullocks' skulls on which are left the horns and a strip of skin running down the face. Inside, in the centre of the *O-Singira*, the *Ol-Otuno* 'sets up' a stick of the wild olive tree (*Olea chrysophylla*) and so receives his name which means 'He-who-set-it-up.' The doorway of the *O-Singira* faces that of the *Ol-Otuno*'s hut, next to which is that of his assistant known as 'The Cutter-up of the Hide.'

The *e-unoto* of the Loita division of the Masai was held on 10-13 June, 1959, at Entasekera in southern Kenya. The youths taking part were of the right-hand circumcision, the members of which are known as *Il-Deregeyani*.

The ceremony lasts for four days, and the first of these is called 'The Day of the Red Dance.' As dawn breaks, all the people assemble outside their huts facing east. Four elders chant a prayer

calling on every man to love his neighbour, and the crowd then call 'Hoi-yoor' three times—a form of 'amen.' In the centre of the arena—about 70 yards across—some long poles were 'set up' in the ground. To the tops of these were tied some of the ostrich-feather headdresses which Masai *muran* like to wear; and on the branches of nearby trees were more of these and also a number of the conical hats made from lions' manes—not unlike guardsmen's bearskins—which are worn on ceremonial occasions by those who have killed a lion with a spear.



FIG 1. THE E-UNOTO, FIRST AND SECOND DAYS

Above, the Red Dance, girls and warriors dancing; middle, the White Dance, diatomite-smeared warriors dancing; below, the White Dance, bowing to the *O-Singira*. Photographs: Lord Claud Hamilton, 1959

The *muran* taking part in the Red Dance wear a single garment consisting of a length of russet-coloured calico knotted over the right shoulder and hanging down to the thighs. Their hair is worn shoulder-length (a feature of the young men of pastoral tribes of

East Africa), and the whole body is smeared, from the crown of the head down, with a mixture of red mud and beef fat. The dancers gather together into groups of a dozen or more, all facing inwards towards a small open space. One young man steps forward into this space, makes a few prancing dance steps, and then starts to jump perpendicularly up and down, his long hair flying up above his head into a kind of halo at the top of each jump.

bark of certain trees, a relic of the old cattle-raiding days, for when the fit has passed the sufferer loses all fear and is ready for battle. An unusual feature of the drug is that, once in a man's system, its effects last for life, and, given sufficient excitement, the man is liable to fits for the rest of his days.

The second day of *e-unoto* is called 'The Day of the White Dance.' Soon after sunrise the *muran* went off into the bush to

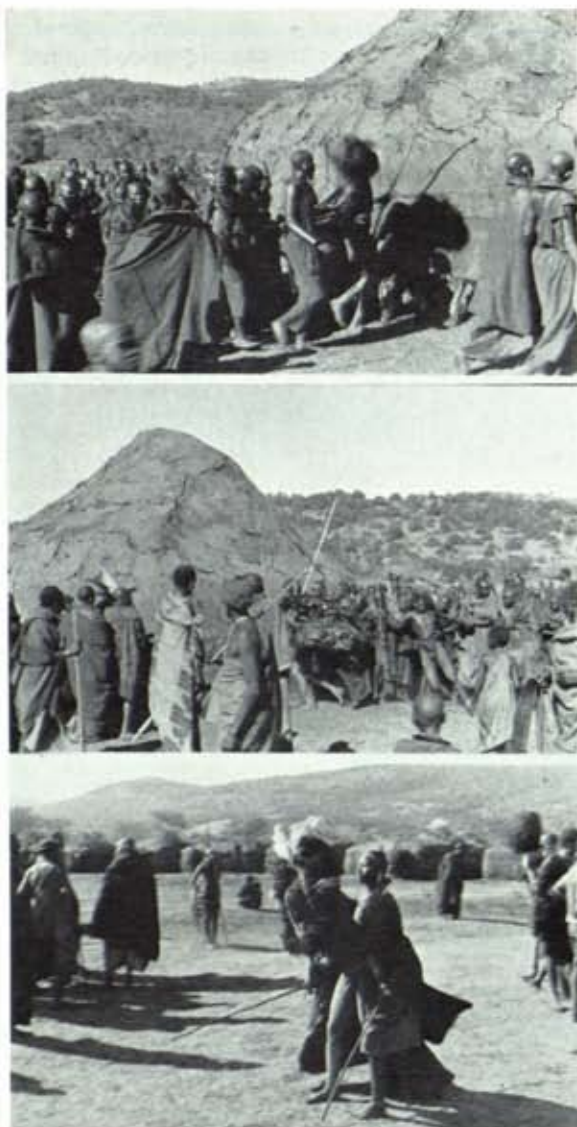


FIG. 2. THE DAY OF THE SACRED HUT

Above, warriors leading their families round the O-Singira; middle, the warriors throwing fits; below, warrior with feather headdress throwing a fit

Meanwhile the other dancers chant and grunt, awaiting their turn to jump. Now and then this type of dancing was abandoned and the dancers formed up to single file, going in procession back and forth across the centre of the *manyatta*. As the number of dancers increased, the young men became more and more excited and soon a number were throwing fits. Foaming at the mouth, eyes staring, arms rigid at right angles to the body the sufferers stagger wildly about until friends come to their aid and hold them down. These fits are caused by the habit of drinking an infusion of the

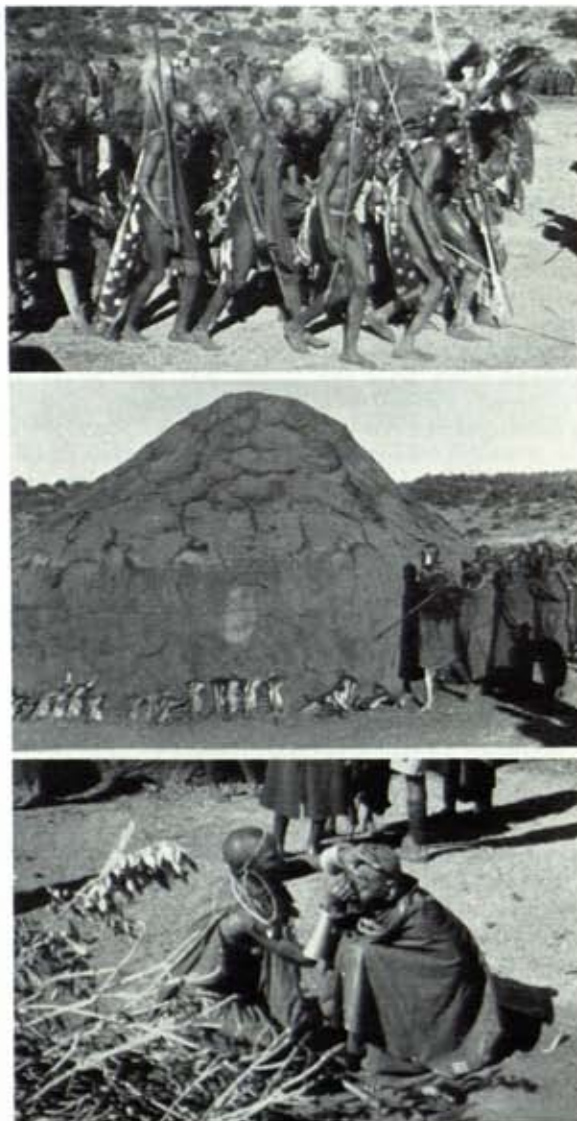


FIG. 3. E-UNOTO CEREMONIAL

Above, some of the 49 'Pure Ones' dancing with their comrades; middle, the Ol-Otuno, who is the first to be shaved, and who wears white diatomite on face and legs, leads his family round the O-Singira; below, a mother shaving her son's eyebrows as he sits on the beaded circumcision hide.

paint their bodies with diatomite. This white, chalklike substance is brought on foot from the Eburru Mountains near Naivasha in The Rift Valley. To bring it, two senior *muran* of good character are chosen, and they go off dressed in women's clothing and ornaments, carrying bamboo staves and cattle-branding tools as a sign that they are on a peaceful errand. Nearing the destination they stalk the diatomite as if it were game. Then they give the

warcry of old: 'I am the son of So-and-So,' and 'I am the Son of Such-and-Such' and drive their branding irons into the outcrop. They fill their gourds with it and then return home and are treated with great reverence at Masai villages *en route*, being fed on a hot mixture of milk and water, known as 'blue water.'

Once painted, the young men formed into two columns, some 50 yards apart, and marched to the village. Many wore ostrich headdresses and some the lion-mane caps. Around their necks and waists they wore gaily coloured lengths of calico and beaded thongs secured crescent-shaped bells to their thighs. The clashing of the bells was deafening. This return journey to the village is carefully planned so that the young men do not have to walk through or near any water or cross a stream. On nearing the village, the columns counter-marched, then joined together into double file and entered the arena. As they passed, their mothers called out: 'Endopok!'—'May you survive!'—but many of the women were busy attending to those throwing fits. There were a number of very violent ones as soon as the columns had passed within the circle of houses. Then the columns split up into groups and marched back and forth across the arena, each group led by an elder blowing a kudu horn (one of the very few Masai musical instruments). Now and then two groups would halt and, forming line, kneel and bow to one another; or to the *O-Singira* hut.

Late in the afternoon of this day the mothers of the 49 'pure ones' shave their sons' heads. All the hair, eyebrows included, is removed by means of a spatulate Masai razor. Milk is used in place of soap. Whilst being shaved, each young man squats in front of his hut on the ceremonial hide on which, as a boy, he had sat to be circumcised, and which, in future, will form the top layer of his mother's bed. A little of the hair from the *Ol-Otuno* and his lieutenant is also put in their mothers' beds, the remainder being thrown into the calf pens which form a part of their family home. Great care is taken that none is left lying about in the open in case birds should use it for their nests—a grave affront to the young men's sacred role.

During the course of the day the branches used as night barricades between the houses were replaced with new ones bearing green leaves. This is a symbolic act, meant to ensure that the *muran* may flourish as 'green bay trees.'

The third day is called 'The Day of the Sacred Hut.' During the morning a heifer, a gift to the *Ol-Otuno* from his father, is driven into the bush and slaughtered. This animal, called 'The Cow of the Rings,' must be a first-calver, well built, and black with a white belly. All the *muran* gathered at the slaughtering place to receive their rings from 'The Cutter-up of the Hide,' whilst their families waited in the village in an atmosphere of great expectancy.

Late in the afternoon the first of the *muran*, naked and still whitened with diatomite, came running back to his hut. There he received a deafening welcome from his family, whom he then led in a boisterous procession round and round the sacred hut. Soon, the whole arena was full of *muran* leading their families round the *O-Singira*, everyone shouting and highly excited. Each young man wore, on the third finger of his left hand, a ring from the hide of the *Ol-Otuno's* heifer. These rings are really only strips of hide about four inches long with a hole near one end to take the wearer's finger. After a time, the 'pure' 49 arrived, their shaven heads gleaming, white circles of diatomite like spectacles round their eyes and garlands of green leaves round their necks. They stood in a group near the *O-Singira* whilst the *Ol-Otuno* was led to his hut. In front of his doorway was placed the hide on which he had sat to be shaved, and on this was set his three-legged stool, and into its concave seat was poured a mixture of water, milk and honey. The *Ol-Otuno*, who seemed all too conscious of his role of scapegoat, then sat on the stool.

The fourth and last day is called 'The Day of Shaving.' Today the parents take the hide ring off their son's finger and tie it to the stopper of the gourd which his mother uses for milk. On this day, too, each of the *muran* gives a black bead to the *Ol-Otuno* who makes them into a necklace. In later life, if one of the givers ever does him any harm, the *Ol-Otuno* throws that one bead away—and the giver dies.

The final act of the ceremony is the shaving of the youths' heads. This is done in the same way as yesterday with the 49. It is a solemn, indeed sad, operation and many a mother was in tears at the thought that her treasured son was no longer a boisterous youth and must soon assume the almost Roman *gravitas* affected by the adult male Masai.

Sixty-One Zande Proverbs. By Professor E. E. Evans-Pritchard, F.B.A., Institute of Social Anthropology, Oxford

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In presenting some more Zande proverbs I would like first to make two general comments. The literature of an illiterate people, if one may so put it, is in their folktales, poetry and proverbs. Speaking here only of proverbs, one may say that nothing gives one, once their meaning has been understood, a better entry into a people's thought about how things should be and how they are than this pithy way of speech; yet anthropologists have in the last few decades very largely ignored them in the publication of their researches. This further paper on Zande proverbs is written partly in the hope that greater attention may be paid to the subject, so that comparative studies may be made and some general conclusions reached.

With regard to the possibility of some general conclusions being reached, a curious fact has struck me when renewing my interest in Zande proverbs—I am astonished that it did not strike me before—namely that whilst the Azande in common with many other African peoples are rich in proverbial sayings I cannot recollect having heard a single Nuer proverb. Lest this might be due to inadvertence on my part I have consulted Father J. P. Crazzola's *Outlines of a Nuer Grammar* (1933) and found that no examples are given. I then consulted Father P. A. Nebel's *Dinka Grammar* (1948) where only 12 specimens are given. Dr. Godfrey Lienhardt confirms that the Dinka have very few. I cannot remember having ever heard an Anuak proverb, and Dr. Lienhardt tells me that he has not heard one either. Though J. A. Heasty gives in his *English-Shilluk Dictionary* (1937) the word *gac* as meaning 'proverb' and Father B. Kohnen in his *English-Shilluk Dictionary* (1933) gives *kwop tedo*, I have doubts about these renderings. D. Westermann in *The Shilluk People* (1912) gives no examples, and although W. Hofmayr in *Die Shilluk* (1925) gives a short list of *Sprüche* many of his examples are sayings rather than proverbs in the ordinary sense of the word. I cite no more examples, but it might be suggested that those already cited point to a problem: why are some peoples rich in proverbs while others have none or are very poor in them? Research may give the answer, for I believe that extensive use of proverbs, or their absence, may go with certain types of mentality which may well be connected with different sorts of institutions.

What has been said about Zande proverbs in previous articles (*Bull. Sch. Afr. Stud.*, 1956; *MAN*, 1963, 3) holds also for those listed below: that they belong to a wider category of double-talk and that there is great plasticity in their use and meaning and to some extent variability in their construction. These points having been established, I have felt it unnecessary to give again, as in my earlier articles, renderings by E. C. Gore (*A Zande Grammar*, 1926) and Father S. Bervoets (*Zaire*, 1952, 1953, 1954), to those writings I make only cross references under the letters G. and B. The fact that some of the proverbs now given have

previously appeared in the writings of these two authors does not mean that they are merely repeated here, because our informants have in many instances given very different interpretations of their sense. The specimens listed below are all from my own collection, collected by myself or on my behalf by Mr. Reuben Rikita¹ and Mr. Richard Mambia.² So far as I know, they were all taken down from adult Azande. This may be significant, because I fancy that Bervoets, and possibly Gore also, mainly relied on schoolboys for both proverbs and their interpretation, and boys would probably only know what might be called the primary meanings and not the more involved and hidden senses which they can be made to bear when used in a variety of situations in the social life.³

(1) *si a ngba fo ro wa si a ngba fu bakondo*, it is good for you as it is good for the cock. 'You are as lucky as a cock. Things favour you as they favour a cock. It does not have to weary itself to collect spears to marry wives with them, because people gather its wives for it. Some people are as lucky as that.' Also: 'this is a bad proverb (*sanza*). A man talks of another's good fortune with envy: how lucky he is to have so many wives!' (G., 96)

(2) *ba anga na ina nga oto rago kpio ru te*, the male dog does not know how to run at the time of its death. 'On such a day as misfortune is to occur to a man—though people have warned him—he does not understand the advice given him until the misfortune befalls him.' (B., 1953, 94)

(3) *bagbaya a nze mbiko kandu*, *bagbaya* (a rat without much fat) got fat (oil) because of *kandu* (a rat rich in fat). 'What we cannot do by ourselves we could do if we joined with others in it who are lucky, just as they took *bagbaya*, who had no fat, and put it [in the same pot] with *kandu*, who had fat, so that the oil of *kandu* made *bagbaya* oily, so that it was tasty.' (B., 1954, 94, 95)

(4) *poporopopo na ndu ku kporo kpio nganga yo*, the delicate one attended the funeral of the sound one. [A variant is *katirikatiri na ndu ku kporo kpio nganga yo*, the wiry one went to the funeral of the robust one.] 'The delicate person goes to the funeral of the robust one while people think it would be the strong one who would go to the funeral of the other.' Also: 'the lean man went to the funeral of the plump man.'

(5) *ba renvo a ya u a gi he ti woro vuru*, the male reed-rat said he would hear it at the sound of his stomach. 'Some people, although they are warned against things which have brought harm to others before, insist on doing these things because they [appear to] want to experience the same fate.' [Also: 'this means that one says to a man "you, get up and flee." He says he will not flee, he will know that trouble threatens when they seize him. If they come and seize him, then it is true, in that he knows it indeed by the sound inside him, because they have seized him. It is thus that one says about a matter, the reed-rat says it will know it by the sound inside it that indeed they have speared its belly.'] The reed-rat lies still in the grass to escape observation. It knows when it is observed by the noise of the spear thrown at it. A man will know a thing by events, and the same is said of a man's character. (B., 1952, 52)

(6) *dirubaruyo ni fo ngbadu ni ti mbia*, he who removes something from its place hits his chest against a rock (is responsible for it). 'If you take a man's thing without his permission and it is damaged in your possession, or another man loses what you have removed, it is your responsibility. It is as though you wished the man's thing to be spoilt.'

(7) *ba waku na ora nga ti bangiri kurai te*, the male baboon does not flee to another's eyes. 'That animal the baboon would not run away when another flees from what it has seen and he has not seen. Do not trust just in talk without proving the truth of what is said. Otherwise you will spread lies about what you yourself have not seen.' (B., 1953, 10)

(8) *giri bape na kuruka nga te*, the cord of vengeance does not rot. 'This is as though a man said "my sons, that man I have made trouble for, do not fail to remember him for he will make trouble for you."'

(9) *mo ni ra fu dari mo ni zunga kina ndu dari*, if you are the subject of frog you swear by the limb of frog. A man swears by the limb

of his ruler, not by that of another. 'If you are the subject of a prince or of some other master you should exalt him, and you must not shame him in favour of some other person.' (B., 1954, 39)

(10) *di anga due yo u a kama ti ru ka runda kina ro berewe*, take a dog from a pit and it turns round to bite you. This proverb is spoken about ingratitude. (B., 1954, 133)

(11) *apedi ni gbe he fu angaru*, *apedi* (very small fish) draw (pull) a thing for *angaru* (very large fish). 'Every big event which occurs, it starts with little events or little people, and then it brings plenty of sorrow to many important people.' (B., 1945, 13)

(12) *rindi ngua na ti nga ngba ba zire te*, fruit does not fall from the beak of a big bird. A great man will not refuse small gifts.

(13) *sosorosoro ku ati yo*, *warakasa ku kurungbu yo*, reluctant (shuffling, unwilling) for (work in) the cultivations, eager (with a bound) for the bowl (of food). 'Some reluctant people are asked to work or to do something and they refuse to do it, but should something good come of it they are the first to take advantage of it.' [Also: "'slow to the garden, quick to the bowl" is said to (or about) a lazy person. This *sanza* is as though one were to say "you don't want to hoe the cultivations, but when you see food in the bowl you have already got up with a bound to eat it; but if they tell you to go and hoe the cultivations you are not cheerful about it"'] (B., 1953, 35)

(14) *ba ngbari a li bambiko ba go*, the male termite ate on account of the big termite mound. 'It is as though a man said "I eat this because of you." An expression of thanks.'

(15) *sosono boro ni susi ngenze*, *toni gude bi ru*, a grown up person passes by a snail while a child sees it. 'We must not think that we know everything. Even though a person is grown up, there are many matters he may learn from others. Even if he is a leader his followers can give him advice.'

(16) *vuru ghia na dia nga gbanga sa kare te*, the subject of a prince does not take hold of the long tail of the iguana. 'A traveller should not take part in the affairs of others' (a visitor from another province should not take part in the affairs of the one he is visiting; he should mind his own business).

(17) *bangiri darianga ni go*, *bangiri kpariakpara na go nga te*, *darianga* (the sham mourner) forgets, *kpariakpara* (the weeper, the true mourner) does not forget. *Darianga* is the *boro bape*, the man who has done an injury. *Kpariakpara* is the *ira bape*, the man to whom the injury has been done. It is the man who does a wrong who easily forgets it, not the man it has been done to. (G., 32; B., 1952, 31)

(18) *nbara na ti nga ki hi due te*, an elephant does not fill a pit when it falls into it. 'When a person gives you something do not expect it to fill the baskets, even if the donor has plenty of it. Do not expect always to have a great deal of everything' (be satisfied with the little you have). (B., 1952, 50)

(19) *i na ina nga fuo wiri ghia dogoro yo te*, the footprints of a noble cannot be recognized in the mud. 'You cannot distinguish the footprints of a noble in the mud, because they do not differ from those of other people [commoners]. So nobody will tell you that here are the footprints of a noble, or that these are the footprints of a man of substance, for a man's footprints are not the same as his person.'

(20) *mo wa turugba pangba gine ni di boro rebete*, you are like the honeybird at the side of the path which takes a man easily (it takes you far while you think that the honey is near). The meaning of this is 'you are a cheat.'

(21) *oro be agbe ti ku be ambara*, the fleer from buffaloes fell into the hands of elephants. 'When a man decides to leave one district for another he thinks better, he may meet with death there too or encounter worse troubles than those that he wishes to flee from' (running from one place to another does not solve a man's difficulties; it is better for him to stay where he is and think out a solution). (B., 1954, 40)

(22) *mo kiti baso ti wiri zigba*, you have broken a spear on a young warthog. 'Do not say all you have to say at the beginning. Wait first to get to know all about the matter; otherwise you will leave ahead [unsaid] what you would have said.' (B., 1953, 88)

(23) *ngera ku sayo na ngia nga gunde te*, looking behind does not indicate cowardice. 'There is nothing you can do correctly without taking advice about it. He who fears to ask cannot understand things well.' (G., 94; B., 1952, 55, 1953, 72)

(24) *i na zuna nga gaza na ira ha te*, people do not dispute over a drum with its owner. 'You should not quarrel with a person over his property.' The word *zuna* means two persons pulling at a thing, each trying to gain possession of it. (G., 8; B., 1954, 105)

(25) *mo a uri de mo a tuma ti ro ni rumbu ro*, if you commit adultery you will pay with your bottom. 'A man tells his son "if you play the fool as you have been doing and go after the wives of elders you will end up by being emasculated".' 'Bottom' is *sanza* for 'genitals.'

(26) *pai uru yo*, something from the east. This is used in a condemnatory sense to refer to Europeans and their customs and innovations. 'This means that the Europeans came from the east in great numbers to kill people, for Azande used to think that the British had come to do people ill. However, most people know now that they are good people because they stop the killing of people wantonly. There are some who still think it, saying that the white men are no good, because when [King] Gbudwe was alive they killed many people in vengeance, whereas now the British reject all vengeance in favour of adjudication.'

(27) *ba iwa fu ture a du sa*, Ture (the chief character in Zande folk-tales) had only one operator of the rubbing-board oracle. 'A man has only one real friend among so many acquaintances, who is the one who helps him. There are not many people who would help a man. There are very few who would help him.' (B., 1952, 43)

(28) *kondu kpaga na ri nga ha te*, who shells the seeds of the oil-gourd does not eat them. 'Those who labour much at something do not always enjoy the fruits of their labour.'

(29) *ku be na nye nga ku sii yo te*, an empty hand does not remain in the hollow of a tree, 'if a man goes to gather honey, or to ask for the hand of a girl in marriage, and does not find any honey in the hollow, or is refused the hand of the girl, there is no need to waste any more time in that place, for he has had no luck there.' When one fails he need not be ashamed to withdraw. (B., 1954, 73)

(30) *anzigi a bi bagu*, the tree ants will see the mahogany tree. The ants go right to the top of the tree where no one can get at them; so a man seeks protection from vengeance (*bape*). [The same sense may be expressed by *badari a bi gangara*, the ground squirrel will see the hill.]

(31) *awirina ue na imi kokoso*, the gymnastic lizard was killed by two brothers. 'Do not attempt to do by yourself something very difficult. It requires two people to tackle a difficult job.' This lizard is particularly difficult to kill.

(32) *gbisigo ba bizo na gherisi ba bizo*, constant shifting of the place of the fish trap spoils it. 'If someone tells you to do a job and you say you will do it and then you do not do it, it spoils whatever job it is you have been spoken to about.' (B., 1952, 61)

(33) *mo a kpasaka re wa kukuruku na li di*, you have been troubling (wearing, boring) me like the *kukuruku* tree and the head of a stream. [A variant is *wa kukuruku ku li go*, like the *kukuruku* tree at the top of a termite mound.] 'A person dislikes another and constantly speaks ill of him. He wants to interfere in his affairs as those trees, the *kukuruku*, like to monopolize stream heads.' [Also: 'you are always at me (offensive to me) like the *kukuruku* tree at the top of a termite mound.']

(34) *gine de li ni guari ti ni ka ndu ku ndo yo?* Why does a woman go to the salt marsh? This means: what takes a woman to an administrative (European) centre where the sexes meet in numbers and fornicate like animals at the salt licks?

(35) *ghosoka ru na do nga ru te*, who disturbs it (a rat) does not chase it. 'He who starts trouble, or a fight, does not always have the strength for it. He just starts trouble for others to suffer from it.' (B., 1953, 79)

(36) *i a moi taparasi pangba gene mbiko ruga a*, they put a forge by the pathside because of advice. 'Nobody knows everything. People are admonished so that they may understand their work better. When a person is given advice he should not get angry (show impatience).' This is said to a stubborn person. (B., 1952, 41)

(37) *ba zire ni nga u ni sungu ti ni*, if a bird is comfortable it stays where it is. This is what a wife may say to a husband who ill-treats her. It is a hint that she will leave him if he does not behave better.

(38) *i na zia nga wene de ti fugufugu vura te*, a beautiful woman

cannot be captured in a war announced in advance. 'If a person is forewarned to take care of himself with regard to something threatening him, and if he forgets and that something befalls him, it is his own fault, for he was informed in advance (reminded).' The expression *fugufugu vura* can also mean a return war, and therefore an expected one, and the proverb can mean 'a man should not be punished twice for the same offence.' (B., 1953, 75)

(39) *bangiri sooru na go nga ti mvure te*, who pierces her nose does not forget the straw (to keep the hole open). 'Since you neglect your work, who is going to do it for you?' (G., 100)

(40) *ni mire na si nga a te*, who excretes dung does not tread on it. The person who arranges a thing does not suffer.

(41) *u-a-kpi-na-mo na du nga mbiti di yo te*, (who says) I-will-die-with-you does not (should not) live beyond a stream. 'If a man says to you that he is your great friend and if trouble falls on you, whether by day or by night, he will be there to help you; in regard to what he says, he is living elsewhere, so he could not help you if trouble comes to you by night, because he is living elsewhere.'

(42) *si e ni nduru ni ya ga u dimo ye*, he who kicks away something (useful) with his foot knows he has one (of the same kind) in his hut. 'When you are given food together with others do not just say "let them eat"; you may miss your chance.'

(43) *kura a kati ti ngba mongu*, the whistle has broken off the side of the bag. A man going to collect termites ties his little magic whistle (for termite-collecting) to his bag so that it rests against it on the inside. When he returns with his bag full of termites the whistle, still hanging from the top of the bag, now rests on the outside of it and would sometimes get torn off when going through grass or scrub. (A man might also tie the termite medicine *bambu turugba*, a piece of the nest of the honeybird, to the rim of the bag.) I was told that this proverb is said by a man whose chief supporter has died, e.g. a man whose father has died and who receives no support from his father's brothers. Then one of the uncles dies and the nephew says about this man's sons 'Oh well, our distress is the same, the whistle has broken off from the bag, never mind.'

(44) *mo ki du wa ngama na de kukuta ru*, you are like the snake which bites its own coils. A man who dishonours his father or mother injures himself; also a man who does ill to a friend, such as committing adultery with his wife. 'If a man is on bad terms with all his kin they say this *sanza* to him. The *ngama* is that snake with deadly poison in its throat, that one which kills a man instantly. It has the habit of coiling itself to make a heap of coils, and when it has done that it places its head on top of the heap. So it rests, and when it wakes full of sleep and sees its farthest coil moving, it thinks that it is a man who steals on it to spear it. So it bites its own coil, for it thinks that it is a man who steals on it to kill it; that is why it bites its coil. So it is with such a man who dislikes his father and mother, for they are like his body, for he came from their bodies; he is like a snake which has a long tail and bites its own coil. So Azande say about it "don't be like that snake the *ngama* which bites its own coil, for your father and mother are like your coil (body). Do not injure yourself".'

(45) *ngenze na rengba nga sisi duru yo te*, the *ngenze* (small snail) does not fit into the shell of *duru* (big snail). 'If a man rich in goods and huts leaves his home and a poor man comes to live in it he cannot fill the huts with possessions like the other. You cannot take the place of a stronger (wealthier, wiser, more important) man than you.' (G., 92; B., 1953, 26)

(46) *nungumungu na ta nga ngba ni ti fogo diwi te*, a traveller (guest, visitor) does not (should not) cry out at the new moon. 'When you visit a place you should not intrude on the affairs of your hosts.' (B., 1954, 88)

(47) *i na ta nga furo kpakpu mbata age te*, the bat is not beaten during the first flight of termites. 'Do not get angry at the first mistake, keep quiet and try to understand.' One should not punish a first mistake. A bat should be allowed its share of the first flight of termites. (G., 50; B., 1954, 110)

(48) *ngbaku ba gugu na kio nga te*, the adze (for making) a big gong is not (itself) big. 'A man who does big things is not (necessarily) a big person. People are not likely to accept at once that this small man did this big thing.' (G., 57)

(49) *i na koda nga dagbara na akondo ku nduru yo te*, they do not put a wild cat with chicken in a chicken house. 'A person should not put a bad thing together with a good thing, or else the bad one spoils the good one.' (B., 1953, 64; 1954, 150)

(50) *na kporo ku tia na i tia ni range*, the chief wife of the civet cat fills civet cat with range leaves. 'The old wife of a man knows his habits and how to please him.' Also: 'this means that a man's old wife looks after him. For Azande like a wife who hides food for them in a hut. She gives some to her husband with his many companions. After he has eaten that, when he enters his hut to sleep, his wife brings out this other food for him to eat. It is so that Azande want their old wives to act for them. Therefore they speak this *sanza* about it with reference to the civet cat, for the mate of a civet cat collects leaves of the *range* to stuff his bottom with them. *Range* is that plant [a bulb] with very big leaves which is in the depth of the forest. The civet cat is a little darkish animal of the bush.' (B., 1954, 51)

(51) *wiri wando na zoga be ko ku akoro yo na wiri bazingbi*, the son of Wando puts his hand in the pot with the son of Bazingbi. Renzi, son of Wando, has raided the kingdom of Gbudwe, son of Bazingbi.

(52) *mongozanga a ya hu boro*, Mongozanga said 'a person's property.' 'You should respect a person's property.' Also: 'it is a man's thing, how should I persuade him to give it to me' (a hint to a man that one wants something).

(53) *agume muruko ni ta ri a ri, agume gita ni ri a ri*, when the kinsmen of billhook eat, the kinsmen of hoe eat. 'A man says this to the husband of his sister. It is as though one said "do not give a thing only to your father-in-law, give also to your mother-in-law"; for when a man hoes [prepares, in the case of the man, with a billhook] a cultivation his wife hoes it as well. It has also the sense of, as when a man says to his wife, "you must not prepare food for your own relatives only, you must prepare it also for mine, for we hoed our cultivations together." So they say this in such matters in a *sanza*.'

(54) *detira a zu fu azangarinde*, the oil melon fruited for those who had no teeth. 'Good things do not happen to those who desire them; they come to those who do not think of them.' (B., 1953, 30)

(55) *ka mo ru nga vurukporo ka do ghere wenepia ya, mo do ghere wenepia kina gi bambu yo*, do not stand in the centre of the homestead to dance prosperity, you dance prosperity rather behind the hut. 'This is as though one said "do not speak boasts to people, saying how wealthy you are; do not mock people because you are an important person."'

(56) *zegino a yugo nga ti ru ni sa ru te*, the world did not show itself forth by itself. 'This teaches that even if you are a great man you must not say you emerged by yourself, for there is no one who emerged by himself. Even though the world is a great thing, it did not emerge by itself.'

(57) *zangaberu a du ku gbudue*, he-who-had-no-hands was at the court of Gbudwe. 'When you are given food to be shared with others do not just say "go ahead and eat it" in case you do not find anything [to eat] again.' You will have missed your chance. (B., 1953, 91)

(58) *ango na mbi nga susi ira ru te*, a dog does not become more replete than its master. 'That man who is your leader, you are like his page; your possessions are not equal to his.' You should not expect to possess more than your master. (B., 1954, 17)

(59) *boro na yemba nga wiri kura ni ku ngba bira ba renvo te*, a man does not call the son of another to the run of a male reed-rat (invite him to spread his net where the rat is likely to go). 'Nobody wants something good to happen to his neighbour, only to himself. So a man does not instruct his neighbour's children as he does his own.' (G., 78; B., 1952, 65)

(60) *i na ba nga gbate ku ti kpe ambara te*, one does not throw away the francolin at the cry of elephants. 'If you have a small thing in your hand do not throw it away when you hear big talk about a greater one. Secure the big thing before you drop the smaller one which you will lose.' (G., 90; B., 1953, 87)

(61) *i na roga nga angere ku ngba yo ue te*, one does not put two crabs into one's mouth at the same time. 'It is not good to attempt to do two things at the same time.' Also: a man comes with *sesele*, saying to the parents of a newly born girl that he would like to be

engaged to her (he places the *sesele* plant in the doorway of the hut and if it is accepted he becomes engaged to the girl). The father and mother may agree but say that they cannot go into the matter at present since the child is so small and that it will be time to consider it when she can walk. However, a legal bond has been established and the girl is spoken of as the man's wife and he will act as such towards his parents as in-laws. If later another man comes with spears and asks for the girl's hand, the father, if he is an honest man, will speak this proverb to him.

Notes

¹ In 1927-1930.

² In 1961; Nos. 1-36, 38-42, 45-9, 54.

³ Publication of this paper has been assisted by a grant from the Ford Foundation, received through the author.

Cortical Grooves on the Tibia. By Calvin Wells, Ph.D., M.R.C.S., L.R.C.P., Castle Museum, Norwich.
137 With three text figures

In his description of the mediæval skeletons from the Øm monastery Isager (1936) drew attention to a diseased femur with linear marks crossing the shaft at various levels. These lines, or shallow grooves, have been observed by other archaeologists and anthropologists and appear to give rise to much speculation about their nature. They are especially frequent on the tibia. Sjøvall, discussing Isager's example, says: 'Pressure marks displaying such features can only be interpreted as the effects of bands that had been tied tightly round the bone at the places in question. This explanation is further supported by the width of the grooves and their specialized nature... The character of the strapping is thus indicated, and it is noteworthy that precisely the same type is represented on every one of the bones.' He presumably sees these grooves as being caused by a hem or selva on the bandages. It seems highly probable that this particular femur was syphilitic but the suggestion that the grooves were the result of tight bandaging is extraordinarily far-fetched in view of the fact that a constriction tight enough to produce this impression on the bone would severely compress the femoral artery, vein and nerve thus leading to inevitable and rapid gangrene of the limb.

The uncertainty which surrounds these features is well shown by the variety of explanations offered for them. I have recently met the suggestion that they are healed wounds due to cuts from a sword or dagger and also that they may be the scars of mild fractures, greenstick or otherwise; or artifacts caused by plant roots eroding the bone after inhumation or even the result of worm action.

Gejvall (1960) in his excellent anthropological account of the Westerhus skeletons records an example on a pair of tibiae from Mjärthögen. This specimen appears to be a mild case of osteitis deformans (Paget's disease) but the grooves on the bone are almost identical with those on the Øm syphilitic example. It is unfortunate that Gejvall seems to have thought that the Øm specimen was a tibia. This further confuses the literature because he is at a loss to understand how a tight bandage could have marked the lateral surface of a tibia since to do so it would need to pass between that bone and the fibula. Nevertheless he says: 'it must be admitted that Sjøvall's interpretation may well be correct,' but he is clearly unsympathetic to the idea and suggests that they are more likely to be arterio-venous sulci.

Wakefield and Dellinger (1937) noticed these grooves on tibiae of Mound Builder Indians of eastern Arkansas and thought that they were due to some kind of surgical interference. They even illustrated various stone tools which they described as suitable for performing the operation. In a further comment (1940) they suggest that these lines were due to scraping or, more remark-

ably, cauterization. Møller-Christensen (1955) in his pioneer work on the excavation of mediæval leper cemeteries noticed these tibial grooves and described them in some detail. He says that they 'always appeared to be accompanied by pathological changes in the feet' and although he clearly recognized that they are vascular channels he assumed they were abnormal, 'possibly representing a leprous affection of the vessels.'

In a still more recent article dealing with the signs of leprosy in early skeletal material Møller-Christensen and Hughes (1962) refer to vascular grooves, surrounded by areas of periosteal activity, on the lateral surface of tibiae.

None of these writers appears to consider the possibility that these sulci may be non-pathological in origin yet this is precisely what they are: a normal feature of the bone. But in view of the perplexity which they occasion and the fact that they tend to be disregarded in descriptions of tibial anatomy it seems worth while to offer this brief account of them. The material used consisted of 300 randomly selected adult Anglo-Saxon tibiae. They all came from British excavations but varied in date from the fifth to the eleventh century. A brief review of a few dozen modern bones suggests that there is little essential difference between the two groups but the latter have not been included in this present assessment.

When these vascular grooves occur on a tibial shaft they may be found at any level between the tuberosity and a few centimetres proximal to the malleolus. The great majority, however, occur on or very close to the middle third of the bone. They are typically present on the lateral surface and are usually multiple (fig. 1).

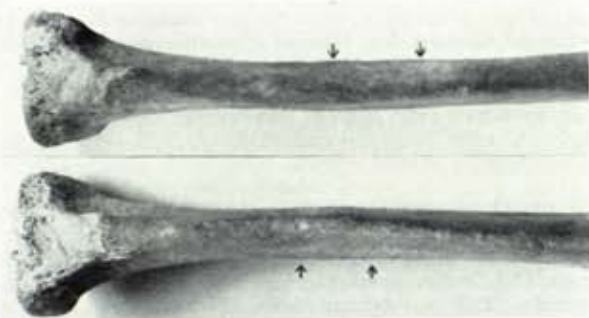


FIG. 1. VASCULAR GROOVES ON TIBIÆ
Photographs: Hallam Ashley, F.R.P.S., Norwich

They were found on 158 bones (52.6 per cent.) of this sample. In a substantial number the grooves were so shallow that they were by no means easy to recognize and only about one in six was strongly marked. The grooves may occur singly or in groups compounded of two, three or even four contiguous channels. The frequency of channels per group is as follows:

Groups with 1 channel	35.3 per cent.
Groups with 2 channels	40.0 per cent.
Groups with 3 channels	21.2 per cent.
Groups with 4 channels	3.5 per cent.

This presumably means that just over a third of them are caused by a single vessel whilst nearly two-thirds are caused by an artery accompanied by either one or two veins. There is a general tendency for the groove nearest the head of the tibia to consist of a single channel whereas the others, especially the most distal, are usually formed from several channels.

The frequency of groups per bone is as follows:

Bones with 1 group	32.2 per cent.
Bones with 2 groups	38.5 per cent.
Bones with 3 groups	22.0 per cent.
Bones with 4 groups	6.3 per cent.
Bones with 5 groups	1.0 per cent.

Few of the grooves are horizontal. Nearly all are oblique and it is usually found that any on the proximal half of the bone curve forwards and distally, while any on the distal half almost always curve proximally. The most proximal group often shows clear bifurcation of its component sulci (fig. 1).

The sex and age of some of the bones was doubtful but most could be estimated with reasonable certainty and no significant difference in the groove pattern was found between males and females. Age seemed doubtfully correlated. There was a suggestion that individual sulci were somewhat more pronounced in older individuals. A few children's tibiae (in the 3-10-year range) which were also examined did not show any grooves.

As stated above these channels occur on the lateral surface of the shaft but they seldom extend from one margin to the other. The commonest pattern is for them to be present only in the anterior third or half of the bone and often an extremely shallow dent is made in the anterior border. Occasionally a few of the grooves turn round this border and leave an impression on the medial surface but only rarely does this extend back for more than a few millimetres. The posterior border of the lateral surface is, of course, the interosseous crest. About 5.0 per cent. of all grooves extend behind this on to the posterior surface of the bone, again for only a few millimetres.

Isager, Gejvall and Møller-Christensen all stress the occurrence of these grooves on pathological specimens and though only normal specimens were used in the present survey it does appear that they tend to be more clearly marked in osteitic conditions (fig. 2). They are thus especially likely to call forth speculation



FIG. 2. GROOVES ON BONE WITH OSTEITIC CONDITION

since a pathological bone usually attracts closer scrutiny than a normal one. Occasionally, although the bone is normal, the sulci are extremely tortuous and suggest that they may have been caused by the pressure of arterio-sclerotic vessels (fig. 3).

It is not my present purpose to examine in detail the origin of these vascular channels. A brief look at dissection-room material



FIG. 3. TIBIA WITH TORTUOUS SULCI

is enough to reveal considerable variability in the source of these circumtibial or periosteal vessels. Abundant arterial and venous anastomosis occurs in this region and branches may be traced coming from the peroneal artery and its perforating branch, the communicating branch of the posterior tibial artery, the nutrient artery, the anterior tibial recurrent and anterior medial malleolar arteries, and from numerous muscular branches of the anterior and the posterior tibial arteries.

My thanks are due to Mr. R. R. Clarke, M.A., F.S.A., Curator, Norwich Museums, for permission to describe this material from the Norwich collections.

CORRESPONDENCE

Before Anthropology. Cf. MAN, 1963, 108

138 SIR,—In his review of *Die Gottesgestalt der lettischen Volksreligion*, Dr. Åke Hultkrantz writes that 'the author argues rightly against the assumption of primeval monotheism.' Why? Was either the author or the reviewer there then?
M. A. MACCONAILL
Department of Anatomy, University College, Cork

Stone Hammers of Neolithic Type. Cf. MAN, 1963, 24

139 SIR,—With reference to M. Van Noten's note on stone axes or hammers in the Congo, I saw similar stone hammers in use in 1942 by the Isu metalworkers and published my observations in 1948, under the title of 'Stone-Age Smiths' in *Archiv für Völkerkunde*, Vol. III (1948).

With reference to the remark that 'as far as we know, no records of modern use of these "true neolithic axes" exist' may I point out that in my article 'Some Notes on the Neolithic in West Africa' (*Proc. III Pan-Afr. Congress on Pre-history*, 1955) instances were given of quite recent uses of neolithic axes?

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I may also mention that W. M. Kerr, in his book *The Far Interior*, Vol. I, London, 1886, p. 159, describes similar sledgehammers as in use by the Mashona smiths.

M. D. W. JEFFREYS

University of the Witwatersrand

Love in Polynesian Atolls. Cf. MAN, 1961, 242; 1962, 293; 1963, 118

140 SIR,—In response to Vayda's invitation: I have already presented as much ethnographical and theoretical evidence as is required to show that his arguments are baseless and illogical (MAN, 1962, 293). Further, far from 'generalizing,' I make explicit the complexity of problems of causality in Polynesian sexual relations. If Vayda cannot recognize or accept that evidence, he will also be unable to accept any further evidence. Nevertheless, in a forthcoming volume on the subject, I promise that I shall deal with his 'argument' as it deserves.

ROBERT C. SUGGS

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REVIEWS

General

A Roster of Civilizations and Culture. By A. L. Kroeber. Chicago (Aldine) (London agents: Bailey Bros. and Swinfen), 1962. Pp. 96. Price £1 12s.

141 Kroeber contemplated a book with this title and from time to time placed contributions to it in a file the contents of which are here published. He seeks, following in part Toynbee and Spengler, to classify and delimit the world's civilizations, and to describe their distinctive features. The civilizations of Europe, for example, are the Classic, Western, Megalithic, Celtic, Norse and Russian. These are subdivided into phases and areas.

Such a classification is no doubt valuable to historians, who are provided by it with a reason, or an excuse, for starting a new volume or chapter, but its danger is that it involves a tendency to draw hard and fast lines where there should properly be only shadings and gradations. Kroeber holds, for example, that during the barbarian invasions Western Europe lost all traces of the Classic civilization and about A.D. 650 began to develop a new civilization of its own, a civilization 'which has throughout remained multinational.' But the facts are that throughout the Dark and Middle Ages Latin remained, under the influence of the Church, the language of the literate; the classical authors continued to be studied in the monasteries, and scholars themselves, as well as their writings, passed freely from one country to another. It was too great reverence for, rather than ignorance of, classical literature which delayed the progress of Western civilization.

In an appendix he discusses and adds to the list made by Boas of Old World traits which by their absence from pre-Columbian New World cultures are alleged to indicate that the latter 'could not well have been derived outright or even mainly from those of the Old World.' The argument is that if they had accepted anything

they would have accepted such obviously useful things as the plough, the wheel and the alphabet. Leaving aside the plough and the wheel, of both of which much might be said, let us take the alphabet. The phrase 'Old World, alphabet—New World, no alphabet' sounds impressive until we substitute 'India, alphabet—China, no alphabet.' We then find that, if we follow Boas and Kroeber, we must conclude that Buddhism was independently invented by the Chinese.

The only completed chapter is an interesting one on what is known of the history of a 'minor civilization,' that of the Pueblo Indians. The other chapters are obviously unfinished, and some of the topics mentioned are discussed more adequately in Kroeber's Huxley Memorial Lecture.

RAGLAN

Diagnosis of Man. By Kenneth Walker. Harmondsworth (Penguin), 1962. Pp. 259. Price 5s.

142 The remarkable variety of subjects with which this book deals makes it a difficult one to review. It begins with a scientific account of the cellular structure of the human body, of the endocrine glands and of the central nervous system. The author goes on to discuss, and reject, the views of such different schools as the Behaviourists and the Existentialists on the nature of the mind and its relation to the body. There are long sections on the debt of Christianity to Buddhism and on its transformation from 'a contemplative spiritual religion' to 'a dogmatic creed promulgated by a despotic church' (p. 223).

But the greatest part of the book is devoted to mysticism, in which the author is a firm believer. He holds that all mysticism is derived from the Hindu scriptures, and in particular from the doctrine of Brahmanism. Adherence to this doctrine will afford the

means of acquiring 'higher knowledge.' 'The writer,' we are told, 'was once asked by a traveller, who had come into contact with the mysteries of yoga, how yogis could know, and have long known, much that science was only now beginning to discover. The explanation is surely a very simple one. There exist higher levels of consciousness, and men who have attained them have access to knowledge which is not accessible to those who only function on the ordinary level' (p. 160). It is difficult, however, to understand

how the traveller, and the author, could know what knowledge the yogis possess, for 'to those who have experienced the higher states of consciousness the formulation of the knowledge obtained on these higher levels would appear to be an impossible task... The mystic stands face to face with truth, but is utterly unable to put into words what he has seen' (p. 161). We may doubt whether knowledge which cannot be communicated has the value which the author attributes to it. RAGLAN

America

Les noirs réfugiés boni de la Guyane Française. By Jean Hurault. Dakar (I.F.A.N.), 1961. Pp. xiii, 363, text figs., plates.

143

The Bush Negroes of Guiana are not a new subject: their origin in the slave insurrections of the eighteenth century is well documented, and from the final decades of the last century several writers have described facets of Bush Negro culture. These authors, however, restricted their studies to the tribes grouped in Netherlands Guiana, and mainly those along the Suriname River.

This work of Jean Hurault, one of the results of five periods of field research undertaken between 1948 and 1958, breaks new ground since it deals with the Boni tribe who, about 1,000 strong, live along the Lawa, as the middle stretch of the Marowini is known. Published as a *Mémoire* of the Institut Français d'Afrique Noire, this monograph is confined to a consideration of Boni society under the headings of relation to environment, social life, organization and institutions, land usage and distribution, and beliefs and myths.

In scope this is the most enterprising study of Bush Negro society yet offered, but in some aspects the results are disappointingly shallow. The description of such features as the maintenance of unity of the matrilineage by superstition, the interdependence on a supernatural level of the lineage groups, and the absence of material sanctions could well afford to be amplified. The same comment also applies to the very narrow range of terms in the kinship classification; this situation is at variance with the more extensive classificatory terminology used by the Saramaka tribe, and described by the late M. J. Herskovits in his paper to the XXIII International Congress of Americanists in 1928. This provides a perplexing problem since the origin and history of the tribes share much in common; more information is needed to explain this apparently divergent social evolution.

Without doubt the most valuable part of this work and one which must have required exacting labour and patience is the census of the Boni tribe; this includes a genealogical table of each lineage, a family history of every individual, and detailed sketch maps of the villages. No future student of the area could afford to ignore this information. Certain minor errors have crept into some of the tables but inspection revealed them to be ones of arithmetic or transposition rather than substance.

Hurault has obviously acquired an admiration for the Bush Negroes, and has transmitted some of his sympathy for them into his writing. He has managed to endow them with a more human and likeable character than any previous author. P. G. RIVIERE

clarity. His book will prove an indispensable part of the equipment of any future research worker in Caribbean anthropology.

FERNANDO HENRIQUES

Lost Tribes and Sunken Continents: Myth and Method in the Study of American Indians. By Robert Wauchope.

145

Chicago (U.P.), 1962. Pp. x, 155, 12 plates, 14 text figs. Price £1 12s.

The peopling of the New World almost since its discovery has attracted the attention of men, both wise and foolish. Dr. Wauchope, Director of the Middle American Research Institute, Tulane University, gives his attention to the latter, covering such extravagances as the lost continent of Atlantis and Mu, the lost tribes of Israel, the Jaredites in the New World, Rosicrucianism, Elliot Smith's Children of the Sun, Gladwin's Men of Asia and the migration out of America associated with Kon Tiki. There is also a chapter on racist theories.

This fascinating book is written with humour and great charm; Wauchope never descends to derision, but by careful juxtaposition of quotations lets his authors condemn themselves. For many the interest will be in the mentality of the theorists. Nearly all of them, working in isolation, were the victims of frustration and persecution complexes; they had the truth, but professionals darkly conspired to prevent its dissemination to enlighten mankind, or else, as in the case of Gladwin's Dr. Phuddy Duddy, they were too stupid to see the light. Wauchope brings out these points with Attic salt.

There is a second group, of whom Elliot Smith is perhaps the best example, who having done excellent work in their own specialized fields, launch out upon the dark seas of speculative theory and end in shipwreck. Leo Wiener, Professor of Slavic Studies at Harvard, was another. He published an enormous *de luxe* tome to prove that Middle American languages and cultures were of Mandingo origin. Finally, there is Gladwin's blending of ill devised ideas with attacks on professionals partly couched in a semi-humorous approach. On that Wauchope quotes Ralph Linton: 'Mr. Gladwin approaches the problem of American origins with the tentative jocularity of an elderly gentleman patting a new secretary's posterior. If she objects, he can lament her lack of a sense of humor; if she does not, the next moves are obvious.'

J. ERIC. S. THOMPSON

Mayapan Yucatan Mexico. By H. E. D. Pollock, Ralph L. Roys, T. Proskouriakoff and A. Ledyard Smith. Publ. 619, Carnegie Inst. of Washington, Washington, D.C., 1962. Pp. 442, 52 text figs., numerous illus., 2 pocket maps. Price \$9

146

This volume is a collection of monographs reporting on the final stages of the Carnegie Institution's 40 years of Middle American Research. This small portion of the huge programme is concerned with archaeological and historical researches in the Yucatan peninsula, with the focal point of field operations at Mayapan. It reports on the attempt made in linking the results of the archaeological research with the knowledge gained from aboriginal and early Spanish written records.

There is no ancient Maya city mentioned more frequently in native literature or early Spanish writings than Mayapan. It was one of the most important centres of Maya civilization before the arrival of the Spanish. John L. Stephens spent a day there in 1841 and described and illustrated it in his *Incidents of Travel*. In 1865 Brasseur de Bourbourg spent nine days at the ruins and in 1881

West Indian Family Structure. By M. G. Smith. Seattle (U. of Washington P.), 1962. Pp. vii, 301. Price \$6

144

There is little doubt that this book is to be regarded as a major contribution to Caribbean studies. It is based in great part on the researches made by the author in Jamaica, Grenada and Carriacou, and is an attempt to give form and definition to the study of family organization in the West Indies. In this Dr. Smith has succeeded. What has hitherto been lacking in the approach to the problem of structure and function in relation to the family in the West Indies is a comparison and synthesis of material from different areas. It is in this field that *West Indian Family Structure* will prove to be of great value.

Dr. Smith's hypothesis that 'an analysis of the mating organization explains the family system of each sample' is backed up by a formidable array of statistics which are handled with great skill and

Augustus Le Plongeon made a short stay. In 1918 Morley and Gann made a brief inspection of Mayapan, but during the next 20 years only T. A. Willard in 1933 and L. Roys in 1936 appear to have visited the site, and then very briefly.

One might have expected so celebrated a centre of Maya civilization to have received more attention by archaeologists before 1938, but it was not until this date that the first real attempt was made (by the Carnegie Institution); this consisted mainly of the mapping of the wall surrounding the city. It also brought forth a large amount of other very useful information. However, it was not until about a decade ago that an intensive study was started and this excellent volume now completes part of the final report. Ralph L. Roys covers the library sources for the history of Mayapan, T. Proskouriakoff the civic and religious structures and the artifacts, A. Ledyard Smith the residential and associated structures; the whole work is well introduced by H. E. D. Pollock.

D. H. CARPENTER

The Indian Tribes of the United States: Ethnic and Cultural Survival. By D'Arcy McNickle. London (O.U.P.), 1962. Pp. [iv], 79. Price 7s. 6d.

This little book is hardly adequate for its purpose. Its history of the relations between Whites and Indians, as a result of which the Indians for three centuries went on losing their lands to the settlers, is told chiefly in terms of official reports, debates and petitions. The Indians appear throughout as injured innocents, and the atrocities which they committed, often indeed under provocation, are unmentioned.

The author says that there are about 600,000 Indians, speaking about 150 languages, still in the States, and apparently considers it both possible and desirable that they should remain permanently in a state of what one might call bowdlerized savagery. He ignores the difficulties which have been met with, at least in some reservations, in inducing the Indians to adopt a way of life which could lead to economic independence.

RAGLAN

Oceania

Oceania and Australia: The Art of the South Seas. By Alfred Bühler, Terry Barrow and Charles P. Mountford. London (Methuen), 1962. Pp. 250, 63 plates, 94 text figs., 4 maps, table.

The book under review, in the Art of the World series, is mostly Bühler's work. He wrote the introductory chapters, the general treatise on style provinces and styles in Oceania, and the concluding consideration of Oceanic art styles and their historical significance. Barrow's study of the art of the New Zealand Maori and Mountford's chapter on the aboriginal art of Australia are concise specialists' contributions completing the book and adding to its value and usefulness.

Bühler's very sound idea that art should be studied in its cultural context, which unfortunately has not yet been fully accepted with regard to 'primitive' art, is the guiding principle of the book. Much attention has therefore been given to what Bühler calls 'the character and history' of the culture of the peoples involved, as well as to 'environmental factors' influencing art and art forms (p. 13). The actual treatment of style provinces and styles (chapter IV) is preceded by three chapters covering more than 80 pages and dealing respectively with geographical setting, peoples and civilizations, principles of Oceanic art, and its religious, social and technological basis. The author concentrates primarily on Melanesia. The 'abundance of artistic treasures' of Melanesia in comparison with the relatively sober material culture of Polynesia and Micronesia is given as an explanation of this bias. It is also argued that Melanesia, and particularly New Guinea, contains areas about which little has so far been published in studies of Oceanic art (p. 14). Of all factors determining Oceanic art the dominating one is, according to Bühler, a religious belief which is closely related to dynamism. The products of this art are the tangible embodiments of a general creative force and this accounts for its expressiveness and its vitality. This idea of a divine force underlying art and art forms had been offered previously by the author in the text of the illustrated book *Sepik* dealing with the results of his and R. Gardi's work in that part of New Guinea. In the present book, however, this principle is applied to Oceanic art in general. The author appears to have been led to this conclusion mainly by his conviction that 'the character of religion [i.e. the belief in a general creative force—S.K.] is basically the same everywhere in Oceania...' (p. 72). Is not the critical reader justified in asking himself and the author whether these ideas and associations found in Melanesia have not been generalized somewhat too easily? The problem of Oceanic art—similarities and dissimilarities in style, distribution of style areas, etc.—is approached by means of the historical method. Bühler's ideas and hypotheses are based on earlier work done by Heine-Geldern and Speiser and particularly on the field research by Carl A. Schmitz in the Huon Peninsula of New Guinea. Bühler offers the hypothesis that the cultural strata, as well as the migrations, the mythical complexes, and the art forms which Schmitz associates with them, have a more general

validity for New Guinea as a whole and for other parts of Oceania. So though he seems inclined to apply Schmitz's results, of which he completely approves, to a large area of the Oceanic world, he nevertheless states expressly that the points in question should only be regarded as possible and need proof (p. 188).

Bühler's chapter IV gives particularly good information on the various styles and style areas of Oceania. We are fortunate indeed that his extensive and thorough knowledge of the Oceanic cultures in general and their material and artistic aspects in particular has now been recorded. One may object to the fact, however, that here and there the description of the objects makes high demands on the reader's imagination. More illustrations would have been wanted to match the substantial and detailed text but this would certainly have meant trespassing beyond the limits set by the publisher. It is definitely a nuisance that the illustrations are not placed in the section of the text which refers to them. It can be assumed, however, that the authors were not responsible.

Barrow's treatise on the art of the New Zealand Maori is concise and clear. By selecting the essential elements from the store of his knowledge of the subject he has written an extremely valuable and useful introduction to Maori art. His concluding remarks are sober and cautious. As to the ultimate sources of Maori art mention is made of Indonesia and the Asian region.

In his chapter on the aboriginal art of Australia Mountford differentiates between movable art, i.e. the carving and decoration of weapons, utensils and ceremonial objects, and immovable art, i.e. paintings and carvings on rocks, sand, and tree trunks. Much attention is given to rock paintings. Five different rock-painting styles of North Australia are discussed (pp. 216f.). The text is insufficiently illustrated, however, so that even the scholarly reader cannot easily form a notion of the art forms concerned.

It is to be regretted that the quality of many of the photographs is unsatisfactory, the colours differing sufficiently from the true ones to make the objects often look unnatural. The drawings are as a whole very good and contribute to the value of the book.

S. KOOLJMAN

Nawok! The New Zealand Expedition to New Guinea's Highest Mountains. By Philip Temple. London (Dent), 1962. Pp. xiii, 189, plates, 4 maps. Price £1 10s.

One cannot expect much anthropological information from an account of a climbing expedition which spent only about five weeks in the west Balim valley in the highlands of Netherlands New Guinea, attempting to reach and climb the Carstensz Pyramide. On the other hand the expedition passed on foot through incompletely pacified country and depended on Dani carriers, so the inhabitants figure fairly prominently. The book, which is very readable, is worth the attention of anyone interested in this area, not only for the incidental ethnography but for the light which it throws on travelling conditions, the climate and the type of equipment needed.

B. A. L. CRANSTONE

ARCHAEOLOGICAL EVIDENCE FOR CHANGES IN MAIZE TYPE IN WEST AFRICA: AN EXPERIMENT IN TECHNIQUE*

By Dr. W. R. Stanton, *University of Malaya, formerly Principal Scientific Officer, Ministry of Agriculture, Northern Nigeria, and*
Frank Willett, *Archaeologist, Department of Antiquities, Nigeria*

150 Amongst the evidence given by Jeffreys (1953) for the presence of pre-Columbian maize in Africa, and among the Yoruba in particular, was a deduction¹ made from the statement by Goodwin (1953) that:

The importance of the dating of maize and of its general acceptance as an article of food in Africa showed itself in a peculiar way in recent excavations at Ife in Western Nigeria. It was observed that a number of pots had been decorated by the simple method of rolling a maize cob over the surface of the clay. As vast numbers of specimens were collected from a pavement of potsherds and provided a clear-cut dating line for certain sites, it became important to note whether or not the maize-cob decoration occurred. It did, and it is abundantly clear that this particular paving is subsequent to the introduction of maize. Further examination of other potsherds may yield evidence that certain deposits belonged to an earlier date, as the simple maize-cob decoration is common and presumably came into vogue quickly after the introduction of this grain.

Further series of pottery are now available for study from two major sites in Yorubaland. This paper is confined to an analysis and interpretation of the maize markings on them as a contribution to the solution of the problem of the entry of maize into West Africa.

Source of Material

During 1956-57 one of us (F.W.) carried out excavations at Old Oyo, 40 miles north-north-west of Ilorin, and at Ife, 55 miles east of Ibadan. These sites are respectively the former political capital of the Yoruba, deserted since 1837, and their traditional religious capital, which is still occupied.² A study was made of the pottery from Old Oyo in comparison with a large amount of pottery from Ife obtained by Mr. Bernard Fagg in 1953. The Ife pottery came from over 80 well shafts dug more or less at random in the occupied area of the modern town.³ At Old Oyo 27 similar shafts were dug largely as wells, but many were located so as to assess the extent of occupation of the city, which covers an area of over 20 square miles. The material thus obtained was supplemented by material from a cave which was excavated in the conventional manner, and by a large series of potsherds collected on the ground surface. The shafts at both sites were 26 to 28 inches in diameter and up to 30 feet deep. The soil was sieved, and every foot of depth recorded separately. Pottery occurred only in the top foot in some cases, but in one shaft in the *Afin* (Palace) at Ife it continued down to 28 feet, at which depth it was abundant.⁴

The importance of the occurrence of maize impressions was obvious. They were found throughout the Old Oyo series, but only in roughly the top half of the Ife shafts.

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It is possible, indeed likely, that the earliest Yoruba deposits at Old Oyo have not yet been located, so that inferences about the date of the foundation of Old Oyo should not be drawn from this evidence. While it would be incautious to infer that maize was introduced half-way through the history of Ife, it is clear that Ife was a well established city before maize began to be used as a pottery decoration.⁵

The Material Examined

Most of the collection was of potsherds between 1½ and 5 inches square, though some larger fragments were available. In general the condition of the Old Oyo material was better than that of the Ife material, the surface of which was frequently worn and crumbled and thus difficult to interpret. This may have been due to a poorer quality of pottery and to the disintegrating effect of higher rainfall (40 inches approximately at Old Oyo, 66-80 inches at Ife). At Ife also, any exposed pot would be likely to stay moist and then be subject to disintegration by algal metabolism for the greater part of the year. In all 66 sherds have been examined from shafts in various parts of Old Oyo; and 97 sherds from 18 shafts in the Aiyetoro and Lafogido areas of Ife. This is only a small fraction of the available material but is sufficient to indicate the value of the method and to act as a guide in future sampling.

The Origin of the Marks

As our references to maize impressions on pottery have sometimes been misunderstood or even challenged, we should point out that the use of a maize cob as a roulette for decorating pottery is in very common use among Yoruba potters, and the pattern which results is identical with the patterns on the older pottery. The use of the whole ear is much less common, since maize is grown as a food crop, not as a source of pottery decoration, and in some cases it is difficult to be sure whether a maize ear or a plait of string or grass has been used. A plasticine impression often allows more certain identification, but there is always a residue of uncertain pieces, and these have been excluded from the present study.

The practice of decorating pots by using maize ears or cobs is widespread in the maize-growing countries in the New World. Complex methods have been found involving the formation of a mould from a half ear and the use of this for impressing a relief on the exterior of pots (Weatherwax, 1954). As practised in West Africa, the procedure consists of the rolling of a moist ear or cob on the outside of the freshly built pot prior to drying, using the flat of the hand.

We believe that maize-decorated pottery is much more widespread in the Old World than the areas where we have travelled ourselves. It is very likely to be found wherever both rouletted decoration of pots is practised and maize is grown. The resulting pattern from the use of the cob is, however, rather dull, and has in consequence failed to attract the attention of ethnographers and archaeologists alike. An example of the pattern on a modern Yoruba water pot, purchased in Ife in 1958, is shown in fig. 1 in the hope that ethnographers and archaeologists may be able to recognize it in areas where it has not yet been noticed. The purpose of the impression is probably more functional than decorative, to give tooth to a surface which might otherwise be slippery when wet.⁶

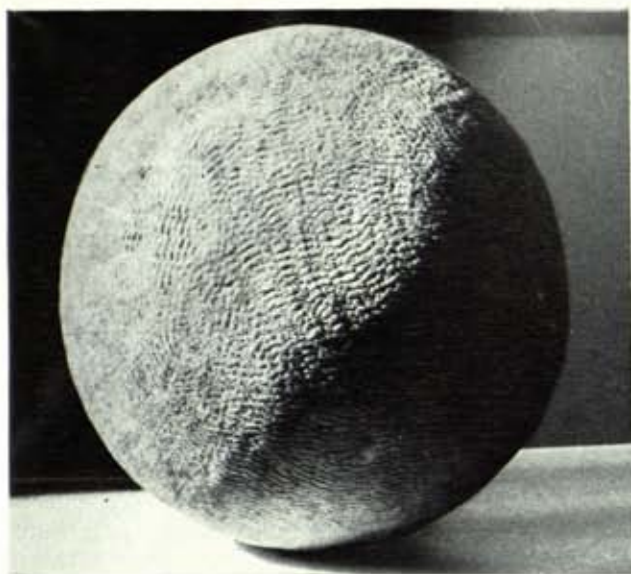


FIG. 1. BOTTOM OF A MODERN YORUBA WATERPOT SHOWING MAIZE PATTERN

Both ear and cob impressions may be found on the same potsherd, as in fig. 2. Such specimens are particularly valuable in providing ear and cob statistics from what may be assumed to be ears from the same locality and harvest. Termites, fungi and wear would ensure that the life of a particular set of marking tools was only a matter of a week or two and the potsherd deposits represent, therefore, the impression of a number of ears for the work of the craftswoman in any one year.

Cob Impressions

Rolling the cob on the moist clay produces parallel runs of ellipsoid tubercles, the depressions being formed by the chaffy floral parts which together with the rachis and rachilla form the cob. Each tubercle represents the cavity in the cob in which two grains (sometimes one) were inserted (see Weatherwax, *op. cit.*, fig. 55). The floral parts are rapidly distorted with use as a roulette, particularly as the cob is wet and thus relatively soft. Cob impressions are, therefore, difficult to interpret and measure accurately. The ease of measurement is further reduced by

the practice of smoothing the impression with the flat of the hand after rolling (*cf.* fig. 4), or by cross-hatching with a smooth pebble.

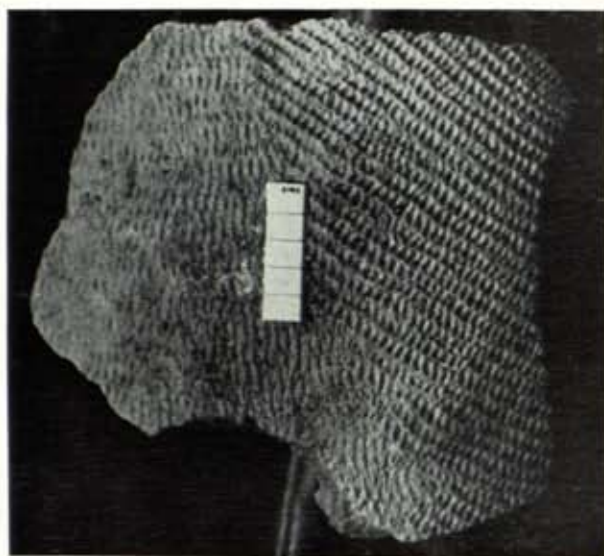


FIG. 2. SHERD SHOWING MARKINGS MADE BY EAR (TO RIGHT) AND COB (TO LEFT)

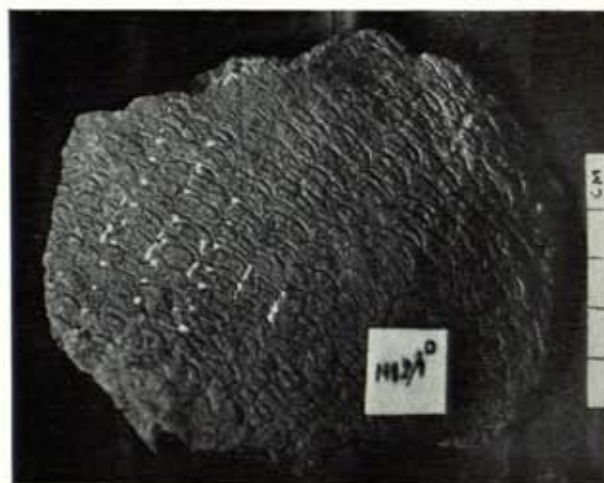


FIG. 3. SHERD SHOWING LARGE DISTINCT COB MARKINGS

Ear Impressions

These are regular rows of hemispherical or ellipsoidal depressions, the depressions on one row staggered in relation to those of the next, the amount of stagger being dependent on the 'tightness of packing' of the grain end sections. Impressions bearing a central ridge which would be made by 'dent' maize varieties have not been found.

Theoretically it would be possible to find the distance traversed over the pot by one revolution (due to repetition of irregularities on the marker) and also to estimate the length of the marking tool. In practice, however, this is not possible since the whole roulette is not in contact with the pot. Each depression represents one grain whereas, with the cob impressions, the tubercle may represent two

grain positions (fig. 2). The sherds illustrated in figs. 2 to 5 are from Old Oyo.

Object of the Analysis

From inspection of the series of samples, it seemed that, in spite of the difficulties of measurement, it might be possible to find out:

(1) Whether there had been any change of maize type in time as evidenced by change in dimension of impressions on the potsherds at different depths.

(2) What relationship there is between the Ife and Old Oyo samples, i.e. whether the trends are similar and whether there is any demonstrable similarity between parts of the Old Oyo and Ife series.

(3) At what depth maize impressions start in the shafts, and whether anything can be deduced about the impressions immediately following the introduction of the crop. The marking on both ear and cob samples may be represented diagrammatically as in fig. 4.

The two statistics obtained from each potsherd were:

X: Estimate of mean grain height

Z: Estimate of mean grain width.



FIG. 4. LESS DISTINCT COB MARKINGS PARTIALLY SMOOTHED OVER

Method

A clearly marked row of six or more impressions was chosen for measurement, preferably one that was flanked by similar rows on each side. Groups of semi-abortive or dwarf grain impressions from markings near the tip of the ear were avoided. The tendency is, in the main, for the markings to become indistinct towards the base and apex of the ear owing to the convexity of the clay surface. The potter overcame this by making further impressions over the faintly impressed area, thus adding to the difficulty of reading the impressions.

The ridges or depressions were marked with white ink for ease of back reference and the total length of row, number of depressions, width of row, number of rows,

measured either directly or with dividers. (The marking may be seen in the photographs, figs. 3 and 5.) The intra-ear variability of grains is small, especially about the mid ear, and the use of the mean of a part row of grains increases the accuracy of the estimate of impression height. Similarly, the measurement across a series of rows increases the accuracy of the estimate of row-width impressions.

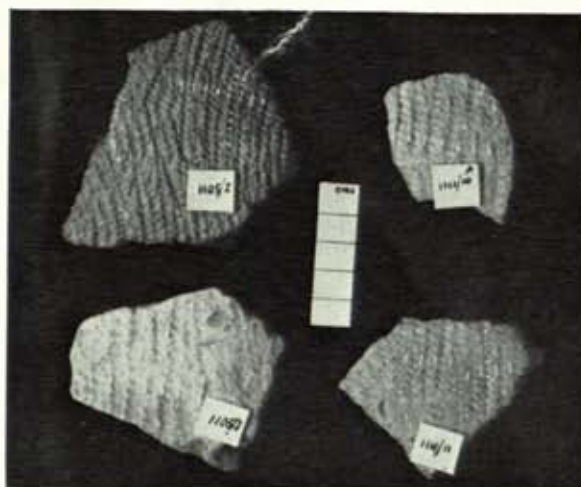


FIG. 5. SAMPLES SHOWING TYPICAL SIZE OF SHERD AVAILABLE FROM THE WELL SHAFTS FOR MAKING MEASUREMENTS

Results

In order to make maximum use of all the measurements,⁷ adjustment factors were calculated to permit the correlation of measurements of height or of width depending on whether the pot was decorated with cob or with ear impressions. It was found that the mean cob measurement for height of 4.4 mm. corresponded to a mean ear measurement of 3.8 mm., i.e. cob impressions tended to be larger than ear impressions. On the other hand the mean ear width impression of 5.6 mm. corresponded with a mean cob width of 4.8 mm. The explanation of the height difference may be that the better ears were used after shelling. The width is understandable in view of the greater diameter of the ear. It seemed preferable to obtain this adjustment factor from the samples rather than by the use of modern maize since the ratio cob-diameter—

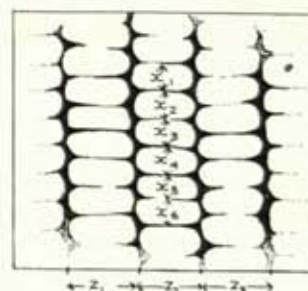


FIG. 6. DIAGRAM ILLUSTRATING THE MEASUREMENTS TAKEN FROM THE SHERDS

ear-diameter varies from race to race and it would be assuming the relationship between the archaeological maize and modern maize. However, given a larger sample of measurements, the estimate from archaeological material would provide an additional character for classification.

The calculated ratios assume that there is no mean chronological difference in the use of ears and cobs for pottery-marking.⁸ This is not apparent from the data although the heterogeneity⁹ is great. To allow for this, however, the distribution of sample measurements is presented with ear and cob measurements superimposed but retaining separate axes and symbols (fig. 7). (The use of the diagonal axes will be explained later in the text.) The four types of measurement are represented by circles for Old Oyo and triangles for Ife. Solid symbols are used for ear and hollow for cob measurements.

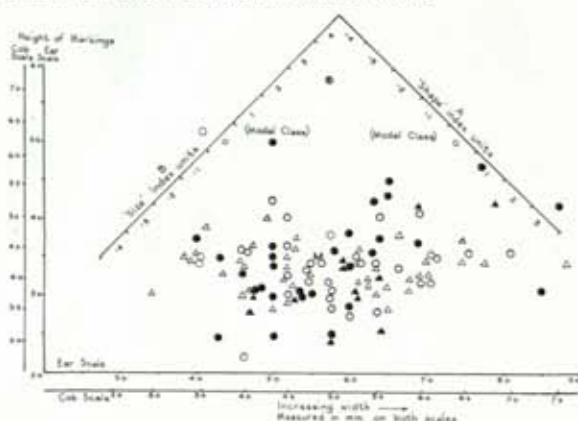


FIG. 7. SCATTER DIAGRAM OF THE MEAN GRAIN HEIGHT AND WIDTH MEASUREMENTS OF INDIVIDUAL SHERDS

The ear and cob measurements are on equivalent scales. Triangles represent Ife samples; circles, Old Oyo. Open symbols represent cob impressions; solid symbols, ear impressions. Note that the outer scales are non-linear.

The first thing which is apparent is the similarity between the distributions of the two samples, as will be seen in Table I.

TABLE I. MEAN SAMPLE HEIGHT AND WIDTH MEASUREMENTS OF IMPRESSIONS

	IFE	OLD OYO
Ear height (X)	3.2 ± 0.5	3.5 ± 1.2
Ear width (Z)	5.6 ± 0.9	5.8 ± 1.2
Cob height (X)	4.2 ± 0.7	4.3 ± 0.5
Cob width (Z)	4.8 ± 1.3	5.0 ± 0.9

Measurements are in millimetres.

It is clear from these figures that there is no significant difference between the means of the two axes used, and the distributions were therefore examined with the axes rotated through 45° (axes A and B in fig. 7). Indices measured along these two axes represent 'shape (A) independent of size' and 'size (B) independent of shape'; that is, they differentiate qualitative and quantitative differences in the end cross-section of the grain. The group-frequency distribution of samples along these two axes was calculated

and these group frequencies are illustrated in the histograms (fig. 8). These histograms show the frequency with which the Old Oyo and Ife samples fall into nine and ten classes respectively based on an arbitrary scale of units on the two axes, the class 0 being the modal class on each axis. The actual frequencies were converted to percentage frequencies so that the Old Oyo (dotted) histogram might be compared visually with the Ife (entire) histogram as obtained on each axis.

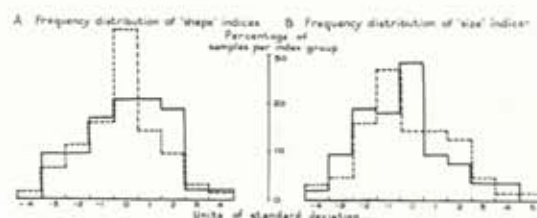


FIG. 8. HISTOGRAMS SHOWING THE DIFFERENCES IN FORM OF THE FREQUENCY DISTRIBUTION OF GRAIN SHAPE AND SIZE AT OLD OYO (DOTTED LINE) AND IFE (CONTINUOUS LINE)

These figures are of interest in that they show differences which are just significant at the 20 per cent. point of:

Fig. 8A: The form of the distribution, but *not* the position of the mean.

Fig. 8B: The position of the mean, but *not* the form of the distribution.

This may be interpreted as suggesting that the Old Oyo maize was slightly smaller and less variable in form than that of Ife.

The use of differentiating indices is a common practice in inter- and intra-specific plant taxonomy to combine the evidence from two or more variables into a single variable, the values of which show a separated bimodal frequency distribution when applied to a population which is suspected of being a heterogeneous mixture of two sub-populations. Normally, maize taxonomists have a number of plant-character variables to combine into one or more indices, thus increasing the precision with which races of maize may be distinguished. The two used here are the only possible ones in the present second-hand data and no more complex aid to analysis than the rotation of the axes is considered justified.

With the present data, values for the standard deviations of the means of the distribution are 1.65 (along the A axis) and 1.9 (along the B axis). To illustrate simply the amount of variation with depth, the transformed data for the mean of each sample are presented in Table II in terms of units of the standard deviation.

The first column in Table II indicates the depth reference number for each separate sherd. The second column indicates the shape deviation and the third the size deviation. Negative values in the shape column (Axis A) indicate increasing roundness of the end cross section of the grain and positive values increasing flatness. Negative and positive values along the B axis represent departure towards smallness and largeness in the grain respectively.

TABLE II. CATALOGUE OF SAMPLES BY WELL SHAFTS SHOWING DEVIATION, ON INDIVIDUAL SHERDS, OF SIZE MEASUREMENTS FROM THE MEAN

IFE SERIES

171	172	172 contd	180	181	182	183
D A B	D A B	D A B	D A B	D A B	D A B	D A B
1a - -	1a +2 +2	2e -1 0	1 -2 0	1a 0 0	1a -1 -1	1e 0 0
1b -1 -1	1b -1 0	2f -1 -1	2 0 -1	1b 0 -1	4a 0 0	1b - -
1c 0 0	1c 0 0	2g 0 0		2c 0 0	4b - -	1c - -
1d +1 +1	1d 0 0	2h - -		2a 0 0	5a - -	2a 0 0
2 0 0	1e 0 +1	2i 0 -1		3 0 0	5b -1 -1	2b 0 -1
3 -1 -1	1f +1 +1	2j -1 -1		4a -1 -1		3a 0 0
4 0 0	1g -1 -1	2k -1 -1		4b 0 0		3b - -
	1h - -	2l 0 0				3c - -
	1i +1 0	3e 0 0				
	1j - -	3b - -				
	1k +1 0	3c 0 0				
	1l 0 0	3d - -				
	1m 0 0	3e +1 0				
	2a 0 0	3f +1 0				
	2b 0 0	3g - -				
	2c 0 0	3h - -				
	2d 0 0					

184	185	186	188	189	189 contd
D A B	D A B	D A B	D A B	D A B	D A B
2 -1 -1	1 +1 0	1 - -	2 +1 +1	1a 0 0	8c +1 +1
	4a 0 0	2a +1 +2		1b - -	8d +2 +1
	4b -1 0	2b 0 0		2a - -	8e - -
		3e - -		2b - -	8f +1 +1
				2c - -	8g +2 +1
				4a - -	9a 0 -1
				4b - -	9b - -
				6a 0 0	9c - -
				6b 0 0	9d 0 0
				6c - -	10 0 0
				6d 0 0	11a 0 0
				8a 0 0	11b 0 -1
				8b - -	11c - -

OLD OYO SERIES

1101	1102	1103	1104	1105	1106	1107
D A B	D A B	D A B	D A B	D A B	D A B	D A B
1 0 +1	2 -1 0	1a +1 +1	1a -2 0	2a +2 +1	2b - -	1 - -
2a 0 0	3 - -	1b 0 0	1b 0 0	2b - -	2c 0 0	4a - -
2b 0 0	4a 0 0	1c 0 0	1c 0 0	2c - -		4b 0 0
4 0 0	4b 0 0	1d 0 +1	2 0 +1	4a -2 +1		5 -1 -1
		1e 0 +1		4b -1 0		6a -1 0
				5 0 0		6b 0 0
				6a 0 0		6c 0 0
				6b 0 0		7a 0 0
						7b 0 0

1110	1111	1112	1116	1123	1125	1126
D A B	D A B	D A B	D A B	D A B	D A B	D A B
7 +1 +1	6 0 0	1a 0 0	1a 0 0	1a 0 +1	3 0 -1	1e 0 -1
	7 -1 -1	1b -1 0	1b +1 +1	1b -1 -1		1b 0 0
	8 0 0	1c 0 0	1c +1 0			
	9 0 0	1d 0 0				
	10a 0 0					
	10b 0 0					
	10c 0 0					
	10d 0 -1					
	11a -1 0					
	11b 0 +1					
	12a 0 0					
	12b -1 -1					

KEY

D	Depth in feet	A	Deviation on A axis
a	Serial number of	B	Deviation on B axis
b	sherd within each	-	Exact measurement impossible
c	foot-depth	-1	Lying between -1a & -2a
		+2	Greater than +2a

Interpretation of the Individual Sample Deviations

A significant change of maize type either in grain shape or in grain size would be revealed by a number of the well shafts from one site showing a consistent positive or negative change of the order of twice the standard deviation of the type indicated by shaft 172 or, possibly (in the opposite direction), by shaft 189.

An alternative approach is that of preparing samples of potsherds from postulated equivalent maize types and finding the effect of baking on measurement. This adjustment factor could then be used to adjust measurements taken from populations of maize ears of postulated appropriate types (Early Caribbean and 'Coastal Brazilian') and these population means tested against potsherd means

of much larger samples than have been examined in this study.

Regrettably, it must be concluded that identification of archaic maize populations on the basis of potsherd-measurement would require the collection of a quantity of data from properly stratified excavations as distinct from isolated well shafts, a type of data which was not available at the time when these measurements were made. The examination of such large samples is beyond our present resources.

The present experiment does show, however, the type of analysis which might be attempted on a large scale should resources permit.

The Introduction of Maize into Africa

There have been a number of theories put forward on the mode of entry and spread of maize in Africa based upon various types of evidence. These have been described elsewhere (Stanton, in press). It is, however, relevant to summarize them here and to consider the types of evidence on which they are based.

1. *The Western China 'Old World' centre of origin.* This hypothesis was based on an early Chinese drawing of what purported to be a maize plant and was supported by certain botanical evidence on the diversity of the crop. Both pieces of evidence are, however, explicable in other ways. As a secondary centre of diversity the theory might be supported from a consideration that the crop may have moved over the Alaskan land-bridge along the route indicated by the human blood-group gene A (see Weatherwax, 1954).

2. *The 'Oceania' route.* This trans-Pacific route has been postulated for the transport of the sweet potato *Ipomea batatas* to Micronesia and the East Indies. In the case of maize, however, this crop-migration route is not supported on botanical grounds (see Hornell, 1946).

3. *The Jeffreys Theory.* That early Arab mariners, at some date before the 'discovery' of America, were in contact with the New World or the off-lying islands and brought maize back to the Islamic World.

This hypothesis has given rise to much controversy, but is not supported by considerations of the botany and evolution of the crop (cf. also Willett, 1962).

4. *The Portères-Stanton hypothesis.* This supposes that there were two routes of entry of maize into West Africa, both of which brought the crop to this region in the early years of the sixteenth century (see fig. 9).

The earlier of these was the Hispaniola-Spain-Egypt-'Voie du Nil et du Bahr-el-Ghazal' (as named by Portères). This brought a type which still exists in the West Indies and has been called the 'Early Caribbean' race by Brown (1953) in his classification of the maize types of the West Indies.

The second route was across from Bahia (Brazil) probably via Portugal to Fernando Po and thence to the coast of the Gulf of Guinea, primarily the Cape Coast region of what is now Ghana, and the ports at the mouths of the Niger.

The 'Bahia' type later suffered contamination with the 'Masara' type in Eastern Nigeria, but the races have remained more distinct in the West.

This admixture is demonstrable botanically and etymologically. The extent to which the types have changed during the period from the sixteenth century to the present day is still under investigation. However, the general relationship between the West African races and their progenitors is clear.

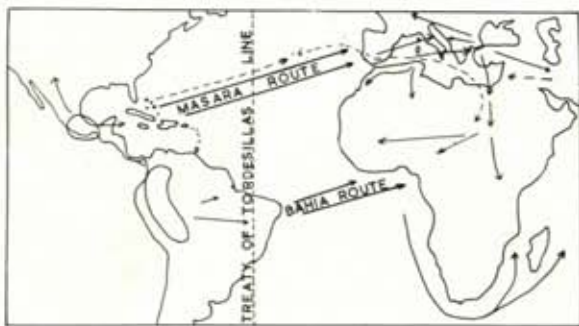


FIG. 9. MAP SHOWING THE TWO MAIN SOURCES FROM WHICH MAIZE WAS INTRODUCED INTO WEST AFRICA

Note that the Bahia maizes were probably taken from Brazil to Portugal before reaching West Africa, following two sides of the triangular slaving route.

It is suggested by Stanton that the complete separation of the Spanish and Portuguese spheres of influence, through the operation of the Treaty of Tordesillas, played an important part in the ethnobotanical development of maize in Africa.

On the basis of this hypothesis, it would follow that Old Oyo might have received, first, maize of the 'Masara' (Early Caribbean) type and that this type might change with the interchange of maize between Old Oyo and other parts of the Yoruba Empire, thus exhibiting increasing variability before the abandonment of Old Oyo.

The Ife site, although perhaps receiving its initial introductions from the north, would rapidly adopt 'Bahia' maize as a plant capable of replacing Guinea corn as the staple diet. It would appear that a similar history may be attached to the early East African maize-introductions, though there would appear to be less possibility of mapping the distributions of early varieties there than in West Africa, where more complete data are available.

If, as Jeffreys suggests, maize was introduced at a much earlier date by Arab traders (and we have demonstrated that one of the West African races is from the Caribbean), then certain postulates may be made about the evolution and interaction of the two races in Africa. First, the 'Masara' type might have been expected to be well established in the forest zone, to have adapted itself to the new environment and to have been changed by limited introgression of the 'Bahia' type introduced by the Portuguese. There would be more of a resistance to the spread of the 'Bahia' type, the original constitution of which would be lost in interplanting with the 'Masara' type. The evidence is in fact that the 'Bahia' type has

pursued its own course of development in the forest and that introgression has only occurred in the areas where the two types have met, i.e. the two types have retained their identity in relation to their respective centres of origin.

Except in the depths of the forest, prior to the advent of maize, Sorghum was grown down to the coast of West Africa, but it was rapidly and completely replaced by maize after this was introduced. In the early years of introduction, therefore, references to 'Milho' and 'Zaburro' might have been referring to maize or to sorghum. The present-day absence of sorghum in these areas cannot therefore be used as an argument for considering that these terms must have referred to maize.

Application of the Hypothesis to Pottery Analysis

As has been mentioned earlier, the analyses of this sample of the potsherds available in 1957 have failed to reveal differences between strata sufficiently large to make significant deductions. However, it has been stressed that the 'well-shaft method' is only an exploratory technique, and is no substitute for more thorough examination of particular horizons. It is not unduly optimistic to suggest that using larger samples taken from particular horizons and comparing them with reconstructed potsherds using 'Bahia' type and 'Masara' type maize (as close, morphologically, to the postulated early invading varieties as possible) it will be possible to divide the maize-impressed potsherds into distinct groups. Even on this inadequate sample, some difference between the maizes grown at the two sites can be distinguished.

Notes

¹ The errors in Jeffreys's interpretation have been pointed out elsewhere (see Willett, 1962).

² A short note on this season was published in MAN, 1959, 135, and a fuller account of the work at Old Oyo was published in J. Hist. Soc. Nigeria, Vol. II, No. 1, 1961, pp. 59-77.

³ The only description of this exploration so far published is in the Annual Report of the Antiquities Service for the Year 1953-54, Lagos, 1956, p. 14: 'A scheme for the extensive exploration of the ground lying under the present site of the town of Ife... was begun early in May, 1953, by driving shafts of a diameter of just over two feet to a depth of up to thirty feet... The work was done by well-diggers who removed one foot at a time which was carefully sieved. The contents were given a cursory examination for possible significant indications and bagged for eventual analysis of the pottery styles which is expected to yield useful stratigraphical evidence. There is a possibility of finding in this way important archaeological sites which could not possibly be found by surface exploration. The cost of operating this scheme... was almost completely covered by converting the unwanted shafts into salgas at a contract price previously agreed with the landlords.' The Ife District Council had shortly before introduced legislation compelling landlords to have such latrine pits for every house in Ife. The Antiquities Service was able to provide them more cheaply than contractors, so the success of the experiment in self-financing excavations was assured. Lack of staff to deal with the administrative problems involved has led to the abandonment of the scheme after a further 18 shafts were dug in 1957. This type of exploration is not a complete substitute for conventional methods of excavation since true stratigraphy cannot be observed, but since such pits are being dug in any case, the archaeological contents can be rescued. Moreover with experienced well-diggers working on a grid a large area can be explored in the minimum time, e.g. in rescue operations where it is essential to know as soon as possible the

horizontal extent of the site. It proved especially valuable in life during 1958-59 in locating potsherd pavements, and enables the limited funds available for excavation to be concentrated on trenching in places where the results are likely to be most informative.

⁴ Pottery from this particular shaft was not used in this preliminary analysis. Later examination of the position of this shaft and of others adjacent to it suggests that the unusual depth of occupation debris was due to its happening to be located over an old well or pit.

⁵ In view of the frequent disturbance of the subsoil nowadays in the occupied area of life by the digging of borrow pits for house-building, it is very surprising to find that maize impressions occur in such a consistently corresponding position.

⁶ It also increases slightly the surface area available for evaporation thus helping the cooling effect of porous waterpots, but this effect could be more effectively achieved in other ways.

⁷ The notebook containing the original data used in this analysis which are too extensive for inclusion here has been deposited in the Library of University College, Ibadan, from which microfilm copies can be obtained on application.

⁸ There does not appear to be any evidence for the prior use of the one or the other instrument after the commencement of the use of maize as a marking tool. This lack of preference is still apparent in modern maize pottery. Such a change in preference would have upset the premise on the basis of which the conversion factor was calculated. The frequency with which cob-impressed and ear-impressed potsherds occurred in different strata did not indicate a preference for one method or the other or a change in the preference with time.

⁹ I.e. departure in the different well shafts from random distribu-

tion of ear-marked and cob-marked samples. If whole horizons were to be analysed, it is probable that this heterogeneity would be resolved into evidence for localized temporary preference by individual craftswomen (or groups of craftswomen) for one or other type of tool, but very large samples would be needed.

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PROCEEDINGS OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

MAN, 1964

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As readers were informed some months ago, the Council of the Royal Anthropological Institute have had under consideration, among other matters relating to MAN, the question of whether it should continue to appear monthly, or should instead be published every two months in double issues. This was suggested on financial grounds, but has been considered from all points of view, and in particular the Council have taken account of the results of the questionnaire circulated with the January issue of MAN. As these results are of general interest, they are summarized here. Some 1,500 questionnaires were sent out and 255 replies were received; of these, 27 expressed a preference for monthly publication and 134 for publication every two months, while 94 said that they had no preference. Of subscribers in the United Kingdom, nine individuals and no institutions voted 'monthly,' 66 individuals and four institutions 'every two months' and 44 individuals and two institutions 'no preference'; of overseas subscribers, 12 individuals and six institutions 'monthly,' 41 individuals and 23 institutions 'every two months' and 25 individuals and 23 institutions 'no preference.' It is difficult to say how far these figures represent absolute preferences and how far they are rather an expression of goodwill towards the Institute in its constant efforts to make economies—the need for which was emphasized in the questionnaire—in order to meet rising costs. The Council and the Honorary Editor are grateful to those readers who replied to the questionnaire. In the light of those results and of all the other considerations involved, the Council have decided that, for an experimental period of three years, MAN shall be published

every two months. Each issue will contain at least 32 pages, and will be styled, e.g., the January-February issue; nominal publication date, which will be adhered to as closely as possible, will be on 1 January, 1 March, etc. The change does not involve any change in policy concerning the contents of MAN, and in particular there is no intention of accepting longer articles than at present, since it is considered important to maintain the clear distinction between the *Journal* of the Institute, publishing longer papers which have been thoroughly examined by a specialist Associate Editor, and if necessary by referees, in order to eliminate in advance any sources of doubt or controversy, and MAN, in which the articles are shorter and on the whole less weighty, and in which these corrective processes are, or should be, carried out in public debate.

Some formal changes will be introduced with the January-February issue of 1964. In particular, fewer articles (probably only the first in each issue) will be printed in the largest of the three type sizes used in MAN (11-point Bembo); other 'Original Articles' will follow in the 10-point size, and these will include many that under present arrangements would be placed under the somewhat anomalous heading 'Shorter Notes' (which will be reserved for shorter notes).

Other experiments will be tried as opportunity arises, and the Honorary Editor is most anxious to have the help and advice of readers in order to make MAN as valuable as possible. He is already profiting by the advice of the Honorary Editorial Advisers appointed some months ago, and a list of names of Correspondents in various parts of the world is being gradually added to. But it is hoped that all readers will make their contribution.

SHORTER NOTES

Implications of Early Human Migrations from Africa to Europe. By Chester S. Chard, Ph.D., Professor of Anthropology, University of Wisconsin, Madison, Wisconsin

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On present evidence the African origin of the great handaxe (Chelles-Acheul) tradition and of its bearers is generally assumed. Its presence in Europe thus represents a migration or rather a series of migrations of early African populations. The initial such movement would probably represent the first human occupation of Europe, since the oldest European cultural remains universally accepted at the moment are the finds of Abbevillian type in the Somme valley. (In the absence of conflicting evidence, we will postulate an association with the human type represented by the Maurer mandible.) From the fact that western Europe and Africa form part of a single culture area throughout the long history of the handaxe tradition, we may deduce that there was at least periodic contact subsequently between the two continents.

The date and manner of this initial settlement of western Europe is naturally of considerable interest. Howell has pointed out that Europe seems to have lain outside the hominid realm during the Lower Pleistocene, when early tool-makers spread over most of Africa and across southern Asia. He suggests that the prevailing sea levels created an effective water barrier in the Mediterranean—Black Sea basin—a barrier that persisted until the lowered sea levels resulting from the first major continental glaciation (Elster-Mindel) (Howell, 1959, p. 833; 1960, p. 225). Since the oldest known European remains date from 'well along in the earlier Middle Pleistocene' (*ibid.*), this eustatic lowering of sea level 'evidently permitted expansion into Europe of those peoples . . . responsible for the Abbevillian handaxe industry' (Howell, 1959, p. 833).

However, the question of the route by which this African migration reached Europe has never, to my knowledge, received any specific attention. This is unfortunate, because it has some extremely interesting implications. Howell implies two possibilities—Gibraltar and the Bosphorus-Dardanelles area—although he does not discuss the matter (1960, p. 225). For the sake of argument, two additional routes are conceivable: *via* Sicily, and around the eastern end of the Black Sea. Let us consider these four from east to west.

There are some early remains in Armenia (Satani-dar) with handaxes of Chellian type. From here it would not be too difficult to skirt the Caucasus barrier along the Black Sea coast and, if one could negotiate the narrow Kerch Strait, reach the Crimea and eastern Europe. (At this time the Sea of Azov and the Caspian were linked *via* the Manych Depression, forming an impediment to direct northward movement from the Caucasus.) There is no evidence, however, that this occurred until much later, since there are no sites north and west of Armenia that are generally accepted as being of pre-Acheulian age. (The famous 'Chellian' site of Luka-Vrublevetskaia in Moldavia is dated on the most tenuous typological grounds, and even Mongait (1959, p. 66) remarks that 'it is still doubtful if these industries belong to the Chellian epoch.') While there are a number of sites classified as Acheulian in the Caucasus, north of the Kuban there are no remains demonstrably earlier than late Acheulian. Even more important for our purposes, there seem to be no indubitable handaxes of the Chelles-Acheul tradition north of the Caucasus Range itself. There are, it is true, a few alleged instances in addition to the scanty Luka-Vrublevetskaia finds: Hancar (1953, p. 72) lists three localities in southern Russia with Lower Palaeolithic handaxe cultures—the only cases that he adduces in all of

eastern Europe. These are Kruglik on the Dnepr, Vykhvatinty on the Dnestr and the Kuibyshev area on the Volga. The sites in the latter are now, however, classified as Mousterian; the Kruglik 'handaxes' are dismissed by the best authorities; and the Vykhvatinty surface finds are considered too amorphous even to classify. (For data on the Lower Palaeolithic of the U.S.S.R., see Beregovaya, 1960, Boriskovskii, 1953, and Formozov, 1959.) It could be argued, of course, that any early materials on the South Russian Plain were concealed by the subsequent loess deposition, but this does not dispose of the fact that handaxes are also lacking elsewhere in eastern Europe.

Howell's map of southern Europe in Elster-Mindel times (1960, p. 196) indicates that the only actual land connexion across the Mediterranean—Black Sea basin was in the Bosphorus-Dardanelles region. It would be only logical to suppose, therefore, that this represents the most likely point of entry into Europe for Lower Palaeolithic man. However, it is a well-known fact that handaxes are absent in the Balkans. And in view of the geological conditions prevailing in this area as well as the state of archaeological knowledge, it is simply inconceivable that the handaxe-makers could have traversed this part of Europe without leaving evidence of their presence. If this observation applies to the early Abbevillians, furthermore, how much more to the subsequent intercontinental flow in Acheulian times.

As for Sicily, the only possible crossing point in the central Mediterranean, the faunal evidence is conclusive that no land bridge existed here during the Pleistocene; and archaeology demonstrates that the island was not occupied by man until the Upper Palaeolithic.

Thus we are left with only one remaining possibility—the Straits of Gibraltar. Again, the evidence against a Pleistocene land connexion is overwhelming. But archaeology tells another story. Morocco and Algeria have been the scene of human activity from early times, while handaxe remains—including some classified as 'Chellian'—are well represented in Spain. We are hence forced to conclude that here and here only lay the gateway to Europe for the handaxe peoples of the Lower Palaeolithic. And it follows that we may expect eventually to find the oldest traces of European man on Spanish soil.

The implications of this view are considerable. First, that even the early Abbevillians were able and willing to cross water barriers—at least those that they could see across. The difficult currents at this point, which would have been even swifter at times when the Strait was narrower, implies some effective method of water transport even at this early time. This, of course, is contrary to all our conventional notions of the abilities of early man and opens up many interesting possibilities the world over. Secondly, it implies that man could have entered Europe from Africa at any time that he chose, since his movements were not restricted to periods of lowered sea level. Thus the settlement of Europe prior to the first major continental glaciation is perfectly possible—assuming, of course, that the capability of negotiating the Strait also existed in earlier times.

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On the Mollusca Collected During the Excavations at Jericho, 1952-1958, and their Archæological Significance. By the Revd. H. E. J. Biggs, F.L.S.
 153 With two text figures

The examination of this rich material has been entrusted to me by the Director of the excavations at Jericho for the British School of Archæology in Jerusalem, Dr. Kathleen Kenyon. Because of the thoroughness of some of the workers in recovering long series of the land and freshwater mollusca we have a valuable addition to our knowledge of these species. All these land and freshwater specimens were, to the best of my knowledge, there in the earth by chance. They were accidentally collected by the inhabitants of Jericho when they brought in earth from the hillside and water from the well. Some were, however, specifically collected for food, such as *Helix prasinata* and *Levanina spiriplana* var. *transjordanica*.

We can, I think, safely assume that all the marine shells found on the site were purposeful introductions by man, either from the Red Sea or the Mediterranean Sea, and for which he had some use. The fascinating problem is to attempt some reasonable solution of the question 'For what purpose was this or that shell brought from the shore?' In this paper some tentative suggestions are made as a basis for future discussion and for the consideration of future excavators on this or other sites in the Near East. They are not intended as an expression of any judgment on my part although some considerable thought has been given to each suggestion as it came into mind. Where a species is represented by only one or a few shells, and no reasonable use for them can at present be suggested, they will nevertheless be listed to demonstrate the variety of shells at this site.

Bivalvia

Arca noe Linné. A single valve of this Mediterranean species. It is not perforated.

Glycymeris violacescens Lamarck. This species is represented by no less than 320 valves. It is a common Mediterranean species. Most have been perforated at the umbone by rubbing, the umbone being the projecting part near the hinge and so easily worked on. The holes vary in size from 1 to 6.3 mm. As it is assumed that these shells were worn we have to choose between suggesting that these with very small holes were only just being worked upon by an early Jericho individual or that they threaded them with some very fine gut or hair.

Cardium edule Linné; *Cardium tuberculatum* Linné. There are 91 single valves of these two species. I list them together as although some are easily distinguishable when fresh very many are so worn and the tubercles so abraded that it is difficult to place them exactly for species. Here again the holes vary in size and a few are unholed.

Because the above three species (two genera) are the only

bivalves so obviously holed for wearing, and also because in a number of cases quite a number were found in one place, I should like to consider them as necklaces. The material to be discussed is made up as follows:

- (A) *Cardium* spp. Eighteen valves, taken from one brick in Wall E.iv. 5, Early Bronze. Fig. 1a.
- (B) *Glycymeris violacescens*. Sixteen valves holed and these vary in size. Early Bronze. Fig. 1b.
- (C) *G. violacescens*. Six valves from 'pit filling.' Early Bronze.
- (D) *G. violacescens*. Eight valves, the holes varying slightly but not greatly in size. Excavator's note: 'All these lying together . . .' Early Bronze.

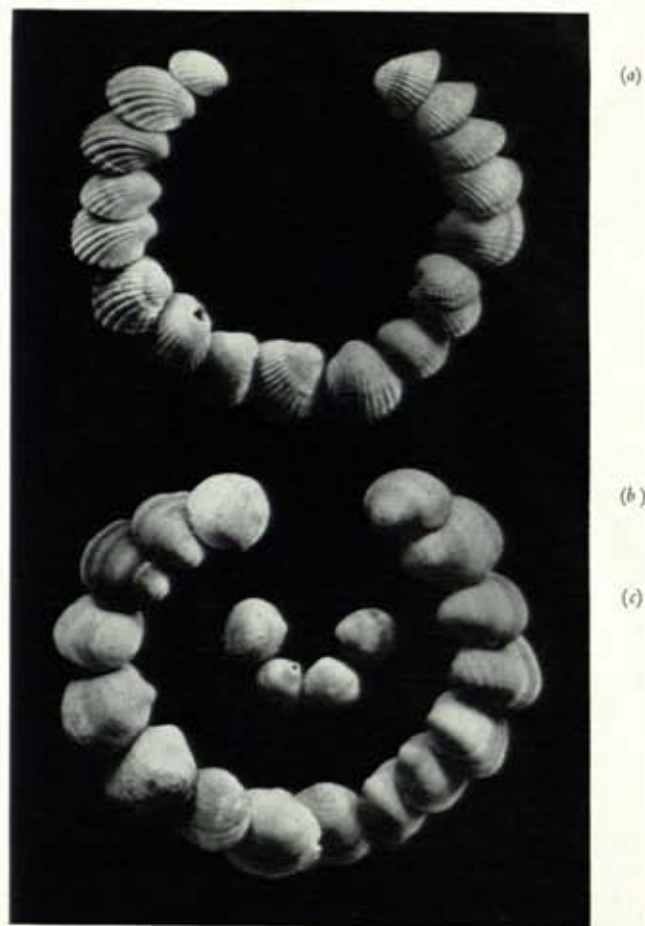


FIG. 1. MARINE SHELLS FROM JERICHO

- (a) Necklace of shells of *Cardium edule* Linné and *Cardium tuberculatum* Linné, Early Bronze Age; (b) necklace of shells of *Glycymeris violacescens* Lamarck, Early Bronze Age; (c) necklace of young shells of *G. violacescens* Lamarck, Pre-Pottery Neolithic Age.

- (E) *Cardium* spp. Twelve valves of two species but difficult to separate. Early Bronze.
- (F) *G. violacescens*. Six valves. Early Bronze.
- (G) *Cardium* spp. Nine valves (complete) and two fragments. Middle Bronze.
- (H) *G. violacescens*. Four valves holed and two not holed. Pre-Pottery Neolithic. Fig. 1c.
- (I) *G. violacescens*. Five valves, four holed and one not holed. The interesting feature of this group of shells is that one of the holes on a shell is overgrown with *Serpula* which means that it must have lain in sea water after the hole had been made.

A second valve has many *Serpular* but not near the hole. Early Bronze.

The first point to which I should like to draw attention is that there were very many beautiful species of bivalve shells in both the Mediterranean and the Red Seas for the early inhabitants of Jericho to choose from if they used this type of shell merely for ornament. If it was beauty of shape, there were likewise many species to choose from. They were chosen for a definite purpose and one of these could have been that they are 'strong' shells, not likely to break when knocked about in general wearing; also possibly—in the case of *Glycymeris* more probably—that they were smoother than most and so not rough on the skin during wearing. One cannot help feeling that neither of these reasons is adequate.

Now *Glycymeris* is a smooth round shell, the outline being almost a perfect circle. At the present moment I cannot think of another shell of that shape which also has the strength of *Glycymeris*. I suggest that this shell symbolized the moon. *Cardium*, on the other hand, is ridged and the ridges could represent the rays of the sun. There are few other bivalves on nearby coasts combining this feature with strength enough to stand up to the knocking-about which they are likely to sustain in daily wear.

The group of *Cardium* which I have labelled necklace A (fig. 1a) were all taken from one brick in a wall. I would suggest that they were put there for a purpose and are not a chance introduction. The intention may have been that they should be a charm to prevent the building from being haunted by the spirit of the dead wearer or that they should be a memorial to that person.

It is to be noted that where we have more than three or four of these bivalves found together they are of one genus, so the early inhabitants of Jericho did not mix their genera in one necklace. From the totals of *Glycymeris* and *Cardium* present it would appear that the deity of the moon was more favoured than that of the sun, if my guess as to the significance of the shells is correct. This would be understandable in view of the connexion of the moon with love-making and the gentle softness of the time of moonshine as compared with the heat and rigour of the sunshine hours in the lowlands around old Jericho.

Taking the total of each genus from all ages, *Glycymeris* are about three times more popular than *Cardium*, and the wearing of both shells more popular in the Early Bronze Age than at other times. The group of shells referred to above as (ii) are all juveniles, a unique set; it may be that this was worn by a child. Yet the two unholed examples found at the same time are also very young shells (fig. 1c).

There are three examples of *Cardium edule* L. which have been perforated in a different way from all the others. The hole is large and irregular (fig. 2h), in one case very large, being about one-third of the breadth of the shell and, most important of all, not on the umbone as are all the others for threading, but in the middle of the shell.

Donax trunculus L. This species is represented by 10 valves and a fragment. Their distribution in time is as follows: three Pre-Pottery Neolithic, one Pottery Neolithic, three Early Bronze and two Middle Bronze. (One is indeterminate.) Now the interesting feature about this species is that some of these shells show signs of chipping on the serrated edge, four of them being considerably chipped. Could it be that the file-like edge of these shells was used for some cutting purpose? Fig. 2i.

Pholas dactylus Linné. This species is represented by a fragment of a valve.

Ostrea sp. From the Pre-Pottery Neolithic and with the reference JpB.4.49 comes a fragment of shell which looks like the hinge of an oyster and may possibly be *angulata* Lamarck.

Gastropoda

Natica didyma Röding. There are six examples of this species, four of which are holed on the periphery about one-third of the way along the body whorl. This hole is oblong. The other two which are not holed for wearing are in very good condition as if newly collected from the shore. This is a Red Sea species. Fig. 2c (1, 2).

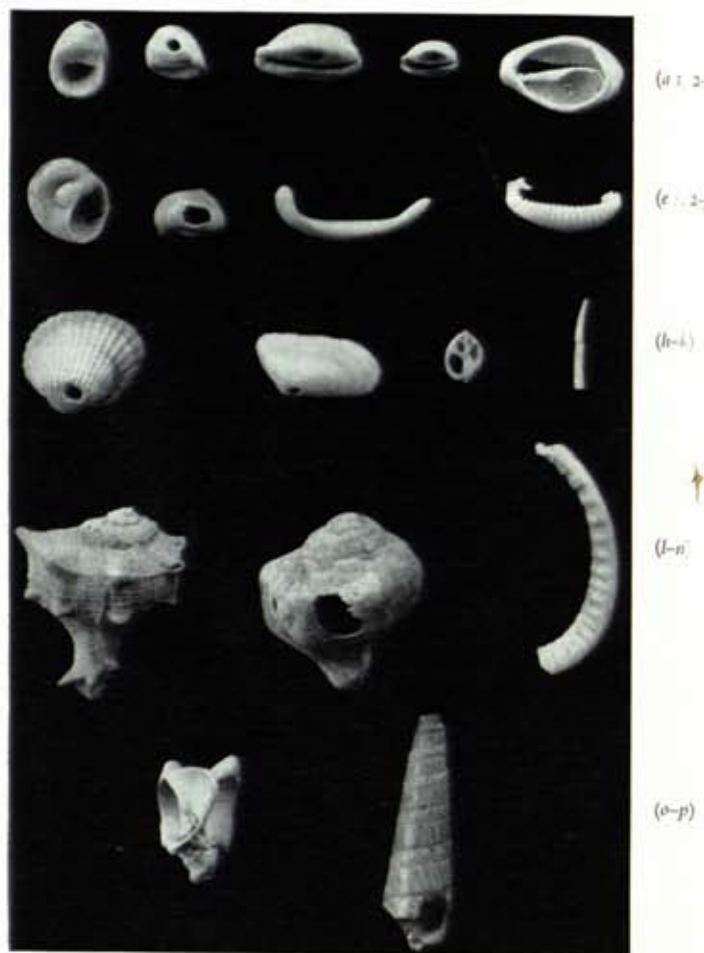


FIG. 2. MARINE SHELLS FROM JERICHO

(a 1, 2) *Nerita albicilla* Linné; (b, c) *Cypraea livida* Linné; (d) *Cypraea turdus* Lamarck; (e 1, 2) *Natica didyma* Röding; (f) *Cypraea* sp.; (g) *Cypraea erosa* Linné; (h) *Cardium edule* Linné; (i) *Donax trunculus* Linné; (j) *Nassarius gibbosula* Linné; (k) *Dentalium* sp.; (l, m) *Murex brandaris* Linné; (n) *Cassis undulata* (Gmelin); (o) *Murex* sp.; (p) *Terebra* sp.

Nerita albicilla Linné. This species is represented by seven examples all of which are holed, by rubbing down on some hard material, at the most obvious point, namely, the beginning of the body whorl. This is another Red Sea species. Two of the examples before me may, however, be *Nerita polita* L. Those which are stratified are mostly Pre-Pottery Neolithic, but one is Early Bronze. It is interesting to note how well some of them have retained their original colour. Fig. 2a (1, 2).

Cypraea spurca Linné. One example only from the Middle Bronze Age, but it is not holed. A Mediterranean species.

Cypraea livida Linné. There are three examples, in the material

to hand, of this Mediterranean species. They are from the Pre-Pottery Neolithic period. All three are holed on the underside in such a way that if placed in the eye socket of one of the modelled skulls it would very clearly represent the pupil of the eye with the lid half closed. The presence of small cowrie shells (e.g. fig. 2c) calls for some explanation. The only skull that I have been able to examine in which the cowrie shells are in the eye sockets is the example in the Ashmolean Museum at Oxford. In this skull they are similar to that figured on fig. 2b and so in proportion; small ones would be out of proportion in an adult skull. I suggest that the smaller ones were used for a child's skull. The preservation of a child's skull would not be connected with ancestor worship. Could it be that these skulls were from a group representing the gods of the town and that one was a child and so, perhaps, the prototype of the Osiris-Isis-Horus cult? This ancient Egyptian trinity must have had its origin in prehistoric days.

Cypraea turdus Lamarck. Three shells worn down to about half-way are distinctly referable to this species; two are from Pre-Pottery Neolithic and one from the Early Bronze Age. Fig. 2d.

Cypraea erosa Linné. One example (JpO.103.39. Early Bronze Age) of a very worn fragment of cowrie (fig. 2g). Six other examples may be of this species.

These fragments are put together on account of their probable use; I propose that they be called 'hook' or 'buckle' fragments. It seems to me that the Jerichoans could know as far back as Pre-Pottery Neolithic times that the ribbed mouth of the cowrie was specially strong and so worked them down till nothing was left of the shell except half the mouth and a curved piece at each end with a sharp point or hook on it. At first I was inclined to think that they might be fish hooks, one end being fastened to a thong and the other used to affix the bait. This may still be the explanation of them. On the other hand it could well be that they were used to buckle a skin round the waist or over the shoulder.

Cypraea sp. A fragment of a cowrie shell (fig. 2f) has been very much worn down and is quite unidentifiable. It is the only example of a fragment of shell possibly used as an awl.

Cassis undulata (Gmelin). The fragment of shell mouth figured in fig. 2n, from a Pre-Pottery Neolithic stratum.

Murex anguliferus Lamarck. One very good example of this species comes from the Early Bronze Age. It is not holed for wearing. Moazzo (1939) says that this species is edible, but it is an Erythraean species and it is difficult to believe that the Jerichoans went so far as the Red Sea for their food.

Murex brandaris Linné. There are three examples of this Mediterranean species; one (JpO.1.2.) is not holed. Fig. 2l.

Murex ?trunculus Linné. One worn and holed example. Early Bronze Age.

Murex hamastoma Linné. One young example, holed. Early Bronze Age.

Murex sp. Finally, to complete the *Muricidae* from the excavations we have a real enigma (fig. 2o) from the Pre-Pottery Neolithic. It is obviously a very beach-worn example. The nature of the edges is typical of wave-worn specimens. It seems to me to come nearest to *anguliferus* Lamk. and therefore would have been brought from the Red Sea.

What was the general purpose of the *Muricidae*? Of what interest could they have been to early man in Jericho? Tomlin suggested (1911) that the presence of examples of *Muricidae* in burial sites was due to their having been used for the extraction of purple dye. This was the royal colour. I cannot help feeling that this explanation is inadequate so far as the Jericho specimens are concerned—there are too few for any appreciable quantity of dye to have been extracted. Again one is clearly holed for

wearing and some of the others are holed through battering on the sea shore and could also have been worn round the neck.

Is it possible that *Murex* was worn around the neck of either heads of families or chieftains of settlements? And that later on in history, because these shells contained the purple dye, that too was reserved for chieftains and only later became the royal colour? In other words, that the significance of the shell came first and only later the reservation of the dye from it for those in high office.

Nassarius gibbosula Linné. There are five examples of this species. Two of them have a hole on the body whorl and could have been used for beads. The other three examples (fig. 2f) are perhaps the most exciting of all the shells found at Jericho. They are most beautifully worn down to about $\frac{1}{2}$ -inch in the thickest part. Thus has been revealed the internal coiling of the shell. They are all three from Pre-Pottery Neolithic levels. What purpose had Pre-Pottery Neolithic man in wearing down these shells in this way? Magical purposes? This could probably be advanced without much fear of contradiction, but is that really adequate? If primitive man had in him the basic attitudes which as a result of fear eventually developed into elaborate ritual and some forms of religion, is it too much to suggest that here we have evidence of the basic sense of appreciation of beauty which eventually developed into the great modern arts of painting and sculpture? If in early man we find expressions of fear why not also expressions of a sense of beauty? I suggest that neolithic man or woman wore down these shells because they liked to.

Conus (Punctulitis) arenatus Brug. Two examples of this Erythraean species are present.

Conus tenuis Brug. One holed example of Early Bronze Age.

Conus mediterraneus Brug. Four examples of this species have been found.

Conus sp. One unidentified cone of Pre-Pottery Neolithic age.

Columbella rustica Linné. This Mediterranean species is represented by several examples. One is particularly noticeable as although it is from the Pottery Neolithic period its surface is bright and shiny and still shows the orange-yellow colour as in life.

The above two genera, *Conus* and *Columbella*, are frequent in excavations in the Near East. I believe that *Columbella rustica* is worn by women in Greece today as a necklace and a love charm. I suggest this was also the purpose in Pre-Pottery Neolithic times in Jericho.

Terebra sp. One example of this species was found in a stratum of Early Bronze Age. All species of this genus are very solid and have a sharp apex, and one can easily imagine that they would be useful as awls. This example (fig. 2p) had the apical whorls broken off as if snapped by use in some hard wood.

Scaphopoda

Dentalium sp. This is probably an example of *entalis* Linné and is the only example found in the excavations. Dr. Kenyon in Plate IIb of her book *Archaeology in the Holy Land* shows these shells applied to a skull in horizontal rows. If this was used for the same purpose, surely there would have been many more of them? Could it be that, as *Columbella* bears a resemblance to the female external genitals, this shell (fig. 2k) resembles the male?

Land and Freshwater Mollusca

The fairly detailed study of the land and freshwater mollusca from the excavations has already been reported on (Biggs, 1960), and I would refer readers to this for information on the purely conchological side of the study. There are, however, several

matters which may interest archaeologists and so I take the liberty of reiterating them here.

The first and perhaps the most important fact is that a solitary juvenile example of *Bulinus truncatus* (Ardouin) was washed from the inside of a dead shell of *Melanopsis praemorsa* Linné. This latter came from a stratum dated c. 1650 B.C. (Middle Bronze Age) and so the *Bulinus* is the first shell of this species to be discovered subfossil in Palestine. As this water snail is the well-known vector of the disease Schistosomiasis or Egyptian anæmia and also as it is known that the strain of the trematode worm causing the disease in Palestine today has a long association with the strain of *Bulinus truncatus* living in the same area today, it is suggested that Middle Bronze Age men very probably suffered from the disease. I have also suggested that it may just be possible that traces of the eggs of *Schistosoma* may be found in the deposits under the pelvis of skeletons of this and later ages on account of the 'toughness' of these eggs.

The second point that I should like to mention is that of the coloration of *Xerocrassa seetzeni* [(Koch) L. Pfeiffer]. In my experience this species is today more often than otherwise a pure white species. In northern Iraq it is almost entirely so. Now in one case the excavators of Jericho had, apparently, carefully collected all from one spot and I had 100 examples before me from a stratum of Pre-Pottery Neolithic date. In this case a much higher proportion of these specimens were banded. That is to say in life they had deeper colours and this is normally associated with a damper and warmer habitat. Although mollusca are very susceptible to micro-climates we may have here some indication that in Pre-Pottery Neolithic times the area was experiencing a slightly warmer and damper climate.

Thirdly, there is the abundance of certain species of largish land shells which occur sporadically through the strata excavated but in certain cases in too large numbers to be accounted for as chance introductions. Indeed one worker has noted that the shells contained in the envelope came from kitchen middens. These two species are *Helix prasinata* Roth and *Levantina spiriplana* Olivier var. *transjordanica* Rolle & Kobelt. A similar species to the former is known to have been an article of diet in some northern Iraq sites of neolithic date and the latter is, I believe, an article of diet even today in Palestine.

The problem yet to be solved is the one of preparation, if any, for eating. I have examined many hundreds from Iraq sites and quite a number from Jericho and there is no sign of burning on the outside of the shell as in shells roasted by man today for food. If they were boiled by Pre-Pottery Neolithic man, and some of the shells present do come from that period, did they use stone vessels to cook in or did they consume them raw?

Acknowledgment

In conclusion I should like to record my gratitude to Mr. Don Brothwell, of the British Museum (Natural History), for much help with this paper and constructive criticisms.

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Trade-Wind Beads Once More. By Dr. W. G. N. van der Sleen, Naarden, Holland

I54

In 1956 I pointed out in MAN (1956, 27) how beads used for barter in the first 15 centuries of our era along the East African coast were comparable with Indian specimens and I suggested that the 'exchange' used by Persian, Arab and even the Chinese traders before the arrival of the Portuguese consisted of beads and secondarily of cotton, silk and cowrie shells. At that time I could judge only from form and colour; it can now be proved that my suppositions of 1956, later repeated and extended (van der Sleen, 1958), were right.

In the autumn of 1958 I was fortunately able to interest Dr. Vittorio Gottardi in this matter. He was the Director of the newly erected Stazione Sperimentale del Vetro in Murano (Venice) and on his suggestion Dr. Maria Tornati undertook the very difficult and delicate work of analysing a few dozen glass beads, using highly perfected analytical methods that made it possible to discover the complete composition of every bead, however small (Tornati and van der Sleen, 1960).

The first report on these analyses brought interesting news. In the trade-wind beads of Zanzibar was found an ingredient which had never previously been identified in ancient glass. This was phosphoric acid. Quantities of 3 to 5 per cent. of P_2O_5 proved that some phosphate salt must have been added deliberately by the ancient glass-makers, perhaps to improve the fusibility of the mixed ingredients, from which glass was to be made. We now know that all Indian beads, when analysed with the utmost care, contain phosphoric acid.

Further investigation showed that the beads from Zanzibar and those from India were identical in this respect; moreover analyses of glass beads from the first centuries of our era were the same as those from the days, when the Portuguese had to buy Indian beads in order to trade with the aborigines of East Africa. The early beads have different forms from the later ones and were manufactured by different methods. The early ones are multiple-wound, made by hand in house industries, while the later ones are drawn beads, which points rather to factory work. But the composition of the early and later beads is the same.

Ancient Indian beads often contain large quantities of lead, which may point to Far Eastern influence, but that is a subject for further research.

These observations about the trade-wind beads are contained in the article in *Vetro e Silicati*, illustrated in colour.

The results of these analyses reached me when I was studying the beads of the Amsterdam factory, and other specimens which were sent to me from Indonesia and might have been made in Amsterdam. Mlle Tornati and Dr. Gottardi were again willing to help and again the results of the analysis threw new light on the problem. Nearly all published glass-analyses show that the glass contains soda in quantities around 20 per cent., reckoned as Na_2O and only small quantities of potash, mostly given as K_2O . I was astonished therefore to find that out of three Amsterdam beads analysed two contained practically no soda but up to 23 per cent. of potassium (as K_2O). Experiments at home then showed me that many Amsterdam beads were rich in potassium and very poor in soda compounds. Beads from Indonesia, too, often showed large amounts of potassium compounds and no soda, or only traces. In the old days in Holland nearly all furnaces in factories and at home for heating or cooking used to burn peat which contained a good deal of potash in the ash, whereas soda was only obtainable by rather expensive and difficult chemical processes. For the study of beads all this is important, because the potassium content of the beads may be used as an indication (not a proof) that they were fabricated in Amsterdam and most probably not in Venice. Fortunately I am in possession of a varied collection of

differently shaped and formed beads from the Amsterdam sites, so that simple comparison may give important indications too.

All available analyses of Indian and East African beads, the latter mostly executed by Mlle Tornati at the Stazione Sperimentale in Murano, have been published in our article in *Vetro e Silicati*, but as this will not be read by most archaeologists and anthropologists, I am very grateful for this opportunity to call attention to it.

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Thalassaemia-Haemoglobin E Disease: A Case Report from Qatar (Persian Gulf).*

155

By M. Shahid, M.D.,
 G. Abu Haydar, M.A., and N. Abu Haydar, M.D.,
 Department of Medicine, American University of Beirut, Lebanon. With two text figures and a table

Among the haemoglobinopathies encountered in the countries of the Middle East, the most common and widespread form is thalassaemia in its different grades of severity. Since the finding of pure sickle-cell anaemia in this area (Shahid and Abu Haydar, 1962) we have been interested in the incidence of thalassaemia in combination with other abnormal haemoglobin genes. Thalassaemia-Haemoglobin S disease has been the form most frequently encountered. Recently our investigations led us to the study of a family from Qatar (Persian Gulf) with thalassaemia-Haemoglobin E disease. The clinical picture as well as the haematological findings and electrophoretic haemoglobin pattern of this case are presented in this report.

Methods of Investigation

The routine haematological studies were carried out by the standard methods. Sickling was demonstrated by the use of 2 per cent. freshly prepared sodium metabisulfite solution (Daland and Castle, 1948). The fetal haemoglobin was studied by the alkali-denaturation test of Singer, Chernoff and Singer (1951). The haemoglobin solutions were analysed by starch gel electrophoresis.

Case Report

History. The patient is an eight-year-old male who was referred to the Dar El-Saha Hospital in Beirut (Lebanon) because of dyspnea on exertion, pallor and progressive enlargement of the abdomen since the age of five years. He also suffered episodes of elevated temperature and recurrent jaundice. There was no history of bone pain, abdominal pain or ulcerations of the extremities.

The patient was born in Doha, Qatar. Both parents are natives of Qatar and are living and well. The patient has one eleven-year-old brother who is in good health and who has never reported ill.

Upon admission because of severe anaemia the patient received several blood transfusions.

* This piece of research was aided by Research Grant No. RG 8607 from the National Institute of Health, U.S. Public Health Service, Bethesda, Maryland.

Physical Examination. This revealed a sick-looking, pale, slightly icteric, underdeveloped boy with mild mongoloid facies. The temperature was 38°C. The heart was enlarged with a diffuse Grade II systolic murmur. The lung fields were clear. The abdomen was markedly distended. The liver extended 6 cms. below the costal margin, was moderately firm and non-tender. The spleen was markedly enlarged, the lower border reaching the brim of the pelvis and medially extending to the right of the midline and felt firm and non-tender (fig. 1). Radiological examination of bones revealed the findings characteristic of thalassaemia.



FIG. 1. PHOTOGRAPH OF PATIENT SHOWING THE CONTOUR OF THE LIVER AND SPLEEN

Laboratory Findings. The haematological findings are summarized in Table I. The anaemia was of the microcytic hypochromic type. The blood smear showed marked anisocytosis, poikilocytosis and hypochromia. There was mild polychromatophilia and punctate basophilia. The target cells and ovalocytes were moderately

TABLE I. HAEMATOLOGICAL FINDINGS

Haemoglobin (g. per cent.)	6.4
Red Blood Count (in millions per c.mm.)	3.25
Haematocrit (per cent.)	23
Mean Corpuscular Volume (cubic micra)	70
Mean Corpuscular Haemoglobin (micromicrograms)	20
Mean Corpuscular Haemoglobin Concentration (per cent.)	27
Normoblasts (per 100 WBC)	10
Reticulocytes (per cent.)	2
White Blood Count (in thousands per c.mm.)	4.700
Platelets (per c.mm.)	20.000
Fragility Test (saline)	
Initial Haemolysis	0.45
Complete Haemolysis	0.22
Serum Bilirubin (mg. per cent.)	1.5
Serum Iron (gamma per cent.)	184
Fetal Haemoglobin (per cent of the total)	17
Electrophoresis of Haemoglobin	A + F + E
Sickling Test	Negative

increased (5–10 per cent.). There were 10 per cent. normoblasts and occasional large spherocytes. There were no inclusion bodies. Fragility test showed an increased resistance of the red cells. There was an increase in the indirect reacting bilirubin. Sickling test was negative. The foetal haemoglobin was 17 per cent. Serum iron was 184 gamma per cent. with 73 per cent. saturation.

Fig. 2 shows the haemoglobin pattern revealed by starch gel electrophoresis. The patient's haemoglobin separates in two bands, one running in the region of A and F and one running behind standard S haemoglobin and interpreted to be haemoglobin E (we are indebted to Dr. H. Lehmann (London) and Dr. P. Fessas (Athens) for confirming the nature of the haemoglobin in this case). The mother's blood showed two bands, haemoglobin A and E, while the father and brother showed only haemoglobin A.

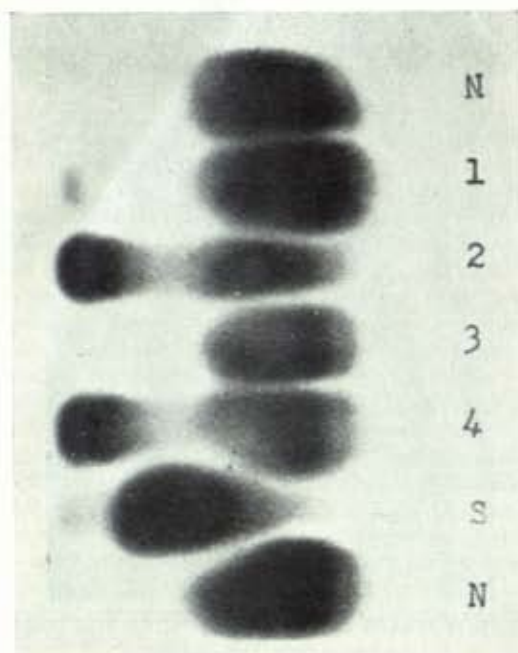


FIG. 2. ELECTROPHORETIC PATTERN OF PATIENT AND FAMILY

N = Normal
1 = Father
2 = Patient
3 = Brother
4 = Mother
S = Control sickle

Discussion and Conclusion

The haemoglobin E gene is encountered most frequently in the countries of South-East Asia. The highest incidence is reported from Thailand (Chernoff, Minnich *et al.*, 1956), Burma (Lehmann, Storey and Thein, 1956) and Malaya (Lehmann and Singh, 1956). The gene occurs less frequently among the Indonesians (Lie-Injo Luan Eng, 1959) and the Bengalis (Chatterjea *et al.*, 1957). It has also been reported to occur in the Vedda population of Ceylon (De Silva *et al.*, 1959). In the Middle East, cases have been reported from Turkey (Aksoy, Bird, Lehmann *et al.*, 1955) and Egypt (Hoerman, Kamel and Awny, 1961). Our patient originates from the Persian Gulf area. From all these areas, haemoglobin E Trait, Homozygous E disease and thalassaemia-E combination have been reported.

The clinical picture in thalassaemia and in thalassaemia E disease is very similar. Both present, with microcytic hypochromic anaemia, anisopoikilocytosis, basophilic stippling and target cells. The presence of many normoblasts and spherocytes is unusual in thalassaemia, but does occur. The E gene tends to make the

manifestations of thalassaemia milder, and a higher percentage of patients with thalassaemia E disease is seen in older people. The presence of the E gene should be suspected and looked for in all cases of atypical thalassaemia. The only differentiating point is the electrophoretic pattern of the haemoglobins. In our patient the presence of haemoglobin A is accounted for by the transfusions which he received before the studies were done. However, small amounts of A haemoglobin may remain undetected in the presence of a major haemoglobin F component.

This is the first report of thalassaemia E disease from the Persian Gulf area and the Arabian peninsula. The E gene may be common in that area, having been transplanted from South-East Asia by pilgrims or merchants, and the presence of this focus of the gene may be the link between South-East Asia and the foci reported from Turkey and Greece.

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Staple 'Grains' in the Western Deccan.* By Professor D. D. Kosambi, Poona, India

156 The oldest surviving text (V–III century B.C.) of the Pali Buddhist canon reports an argument between two ascetics (*Sutta-Nipata* 239–252, the *Ama-gandha-sutta*). The more austere censures the other for living as an almsman, begging food cooked by others, when it would be more righteous to subsist by pure (vegetarian) food-gathering in the wilderness. That the earliest Indian monks represent an attempted reversion to food-gathering is beyond any doubt. Two of the three wild products (*Panicum frumentaceum* and *Phaseolus mungo*) named in the opening stanza are now regularly cultivated. Both products appear in the extraordinary range of 'cereals' (*dhanya*) and 'subsidiary cereals' (*upadhanya*) eaten by the Marathi-speaking peasant. Though the Deccan plateau is not so rich in vegetation as other parts of India, it will be seen that the 44 varieties reported run through the entire spectrum from agriculture to food-gathering, as far as storage grains are concerned. There are proverbially supposed to be 18 varieties in each group, but the number in the latter class exceeds 18 and sometimes overlaps the former—a natural concomitant of variation in food-gathering for different localities. Important cultivated supplements to the diet, such as onions and potatoes, do not appear in either list;

* In the interests of economy the diacritical marks on vernacular words have been omitted.—ED.

maize is a comparatively recent foreign import not yet popular enough to appear in the major cultivated group.

Dhanya: (1) Wheat. (2) Rice. (3) *Cytisus cajan* (*tura*, a pulse). (4) Barley (*java*). (5) *Holcus sorghum* (*jondhala*). (6) Pea (*vatana*), here to be used dried; of course, it is eaten fresh and green as a vegetable as well, in curries and with rice. (7) *Lithyrus sativus* (*lamka*). (8) *Cicer arietinum*, the gram known as *cana*. (9) Linseed (*javasa*). (10) Lentil (*masura*); again, mostly used to supplement rice, or *bajari*, like most other legumes. (11) *Phaseolus mungo* (*muga*); there is sometimes confusion between this and *P. radiatus*. (12) *Panicum italicum* (*rata*). (13) Sesamum (*tila*); the most important source of food oil. (14) *Paspalum frumentaceum* (*harika*, or *kodru*; virtually a weed in rice plots, semi-wild). (15) *Glycine tomentosa*, the vetch called *kulitha*. (16) *Panicum frumentaceum* (*sava*). (17) *Phaseolus radiatus* (*udida*). (18) The bean *Dolichos catjang* (*cavali*) or *D. sesquipedalis*.

Among the *upadhanya*, semi-wild and less regularly cultivated, come: (19) *Holcus spicatus* (*bajari*, or *sajagura*); there is some confusion here about the latter. (20) *Panicum piosum* (*bhadali*). (21) *Coix barbata* (*vari*). (22) *Eleusine coracana* (*nacani*). This, like the preceding, is staple food in the backlands. It can be planted by digging stick, without the plough, as can most of the *upadhanya* list. Slash-and-burn (swidden) methods are generally used when it is planted in forest areas, but *vari* is an upland grain, while *nacani* is cultivated where the rainfall is better. (23) *Baraga*; the millet *Panicum miliaceum*. (24) *Khapale-gahu*, a variety of wheat with indurated glumes that have to be pounded off. Here, it should be noticed that *Phaseolus mungo*, *Phaseolus radiatus* and *Panicum piosum* also occur in some *upadhanya* lists. (25) Maize (*maka*). (26) Safflower (*karadai*; an important source of edible oil). (27) *Amaranthus pendulus* (*rajagira*). (28) *Phaseolus aconitifolius* (*mataki*; with *hulaga* below, this counts as the lowest element of peasant diet in times not actually those of famine). (29) *vala* (*Dolichos spicatus*), but the name seems to be used for several similar beans. (30) Wild rice to be had without cultivation from a few swampy areas around the margin of ponds. This has the special name *deva-bhata*, 'rice of the gods.' (31) *Hordeum hexastichum* (*satu*). (32) *Hibiscus cannabinum*, the frog-plum *ambadi*. (33) The edible mustard *siras*. (34) Cumin seed (*jira*). (35) *Trigonella foenugracum* (*methi*). (36) Bamboo seed. (37) Lotus seed. (38) The rice-weed *Clypea burmanni* (*pakada*). (39) The dried seeds of *Hibiscus esculentus* (*bhendi*) which is also eaten as a fresh vegetable. (40) *Dolichos fabaformis* (*govari*, oftener eaten fresh as a vegetable).

(41) Seeds of *Echites antidysenterica* (*kudyace bija*) rarely eaten as food except in case of great need, but often used for stomach trouble. (42) *Dolichos biflorus* (*hulaga*); this is the favourite low-grade staple on the Deccan plateau section of Maharashtra. (43) Poppy seed (*khaskhas*). (44) White *rata*, a rare variety of (12) above; probably used for fast days, when the major staples are banned.

This list does not take into account the vegetables that grow wild or semi-wild. These grains are often used in rotation of crops. For example, the leguminous additions are generally planted in seed beds of paddy rice after the seedlings have been transplanted; thus, they renew the soil. For hillside slash-and-burn, the method is to plant *nacani* for one or at most two consecutive years; then *sava* or *rata* the next year and then fallow for eight years to allow the scrub to grow again. The immense variety, the obvious transition from food-gathering to cultivation and the method whereby meat-eating is almost entirely avoided by a balanced diet are significant. In the better-forested regions, many of these minor staples can be gathered wild. The list of edible forest products normally known to the local inhabitants goes to nearly 200 for the Konkan forests. This includes fruit, berries, leaves and mushrooms, but not wild game, honey and the like, nor the coconut upon which the entire west-coast economy depends. The most primitive of forest dwellers eat snakes, lizards, mice, monkeys and some insects as well, whenever available. Fish is no longer plentiful, except on the western coast; even there, rather costly except at certain seasons, when it is dried and salted. River fish was a most important part of the diet in the Deccan stone-age days, so that the continuity or lack of continuity depends to a great extent upon ecological changes brought about by man. Deforestation has caused rivers to be silted up and the water to vary rapidly from flood to drought in the streams, hence the poor fishing.

It would be rather difficult to trace the historical development of these food grains and their geographical spread, but this note may provide a basis for future investigation. We should have been in a better position had the Greek observers who came to India with Alexander reported in greater detail upon the diet of the *hylobioi*.

CORRESPONDENCE

Bibliographies of Australia and New Guinea. Cf. MAN, 1963, 46

157 Sir,—I endorse Dr. Needham's plea for a comprehensive bibliography on Aboriginal Australian societies and am happy to report that work has begun on this under the auspices of the Interim Council of the Australian Institute of Aboriginal Studies. A list of current publications on Aboriginal studies was published in the first Newsletter issued recently by the Institute. It is intended that similar lists shall form part of future Newsletters. Publication of bibliographies on selected topics will begin when the necessary information has been collected.

Readers may also like to know that in the Department of Anthropology and Sociology, Australian National University, the preparation of a classified bibliography of the peoples of New

Guinea has been in progress for the last three years. Information is stored on cards available for use in Canberra. It is hoped to publish the first section of this bibliography in mimeographed form by the end of this year.

Australian National University, Canberra

J. A. BARNES

Correction. Cf. MAN, 1963, 112

158 The Hon. Editor of MAN much regrets that, by a printer's error which unfortunately remained undetected in proof, the date of Mrs. Seligman's birthday was given as 26 (instead of 28) June, although the correct date was implied in the later reference to the presentation (which, by a change in the arrangements, in fact took place at the Annual General Meeting).

REVIEWS

GENERAL

Marriage in Tribal Societies. Edited by Meyer Fortes. Cambridge Pps. in Soc. Anthropol., No. 3. London (C.U.P.), 1962. Pp. vii, 157. Price £1 5s.

159 This is a most welcome third volume of the Cambridge Papers in Social Anthropology. The book (now in hard covers) contains four essays and an Introduction by Professor Fortes. The first essay, 'Conjugal Separation and Divorce among

the Gonga of Northern Ghana,' by Dr. Esther Goody, elucidates the importance of analysing the pattern of divorce as well as its frequency. Dr. Goody's valuable contribution also emphasizes the point (sometimes overlooked in discussions of marriage stability) that a relatively high frequency of divorce may be normal in some societies.

In the second essay Dr. Grace Harris presents a cogent analysis

of 'Taita Bridewealth and Affinal Relationships.' She shows that there are five types of marital contracts in this Kenya society, differentiated by the nature of bridewealth arrangements, and that they are correlated with different kinds of affinal relationships.

In the third essay, 'Gisu Marriage and Affinal Relations,' Dr. Jean La Fontaine argues convincingly that though this tribe of eastern Uganda has no rules of preferential or prescribed marriage, the choice of spouses nevertheless follows a discernible norm, which is now changing as conditions change. The last section of this essay contains a most interesting discussion of the effects of modern developments on marriage. Here Dr. La Fontaine distinguishes two types of marriage in modern Bugisu: one for the hereditary *élite* class which is almost endogamous, and one for poor men who cannot afford to seek power through influential affines. This pattern is not unique to the Gisu in Uganda; and the same thing is almost certainly happening elsewhere in Africa, though more evidence is needed.

The final essay, by Mrs. Marguerite Robinson, is 'Complementary Filiation and Marriage in the Trobriand Islands: A Re-examination of Malinowski's Material.' After combining Malinowski's works with the unpublished doctoral thesis (1956) of Dr. H. A. Powell, Mrs. Robinson comes to what seems a fair conclusion, namely that even in this matrilineal society 'the Trobriand father is invested with important, and, in some respects, decisive jural, economic and ritual roles, rights and responsibilities' (p. 155). The fieldwork trips on which these two sources are based were separated by more than 30 years. While it is true that some societies change more rapidly than others, none remains completely static; but I was unable to find any statement by Mrs. Robinson to justify her implicit assumption that whatever change did take place during those 30 years or more had no significant implications for her analysis.

A point of general interest, which derives from the first two essays especially, is the importance of distinguishing between legal rights and rules in society, and what actually happens in practice. For instance, Dr. Harris points out that although a father-in-law has the right to take his son-in-law to court for failure to complete bridewealth payments, this happens very infrequently because 'litigation alters it [the relationship between a magnanimous and long-suffering creditor and a grateful debtor] beyond all recognition' (p. 67). Again, Dr. Harris emphasizes that co-residence really establishes a man's rights in his wife (p. 66f.), and Dr. Goody says that for the Gonja 'marriage is inseparable from co-residence' (p. 32). These notions tie in with the useful concepts of *de facto* divorce (Gonja, pp. 22, 51) and *de facto* conjugal union (Taita, p. 67). In this context Dr. Goody especially is to be commended for her combined quantitative and qualitative analysis, because she fully recognizes that the data for the former are inadequate for proper statistical analysis (p. 23). However, my impression is that the figures in a few of the tables are too small to be of much use even as supporting evidence, particularly as Dr. Goody quite rightly recognizes the extreme difficulty of obtaining very accurate information of this type (p. 24).

In his Introduction Professor Fortes puts forward some interesting suggestions for comparative analysis. For example, he suggests a distinction between prime prestations (corresponding to the capital value which he says most anthropologists would agree is the 'set of rights in the bride's sexual and procreative capacities and the domestic services that go with them') and contingent prestations (corresponding to the ancillary values which are the affinal ties realizable through marriage) (pp. 3f., 9f.). While in most societies rights in a woman's procreative capacities go hand in hand with the acquisition of sexual rights, this is not quite the case in some other societies of which the Gonja and the Gisu are two examples. In these latter societies a man has rights only in those children of whom he is also the genitor. This means that children born of an adulterous union belong to the adulterer (pp. 18f., 118). This may seem a minor point but it can have important consequences. To subsume both these kinds of rights under prime prestations could sometimes mask an important difference. The point is that these two types of prestations (prime and contingent) do not always correspond in the same way to the values (capital and ancillary respectively)

mentioned by Professor Fortes, nor are the two categories mutually exclusive. For affinal relations are furthered and supported not only by contingent prestations, but also by the birth of children, rights in whom will have been established by the prime prestations. Now, in a society in which illegitimate children constitute a significant proportion of all children, and they belong to their genitors, relations between the husband and his affines could be significantly weaker than in other societies, even though the contingent prestations had been of relatively equivalent value or importance. Again, Professor Fortes says that the prime prestation 'is returnable when a marriage is terminated by divorce' because 'its significance lies in its binding power as a jural instrument' (p. 10). But this is specifically denied for the Gonja (p. 17 and p. 52, footnote 6), and it may not be returnable for the Gisu (p. 92).

Comparisons between societies are difficult enough even if we consider only the jural rules, but they become even more difficult if we compound the analysis by including at the same time the reality of what actually happens in practice. And yet if we do not include actual behaviour the comparisons may be of limited and perhaps uncertain validity. For example, Professor Fortes writes, 'As in all societies, a precise demarcation between unmarried cohabitation, even if it imitates marriage in all particulars of residence, housekeeping, sexual association and procreation, and true, that is legal marriage is maintained' (p. 9). But among the Taita 'repeated elopements may force the father to abandon these efforts [to secure the return of his daughter] and should this happen, the status of the union remains undecided. If the couple remain together for some years, the woman's father usually breaks down and accepts bridewealth' (my italics, p. 69). Thus for certain types of marriage, in practice, there may be no demarcation (certainly not a precise one) for some years. And, still as regards the important distinction between jural rules and actual behaviour, what has been said above about *de facto* marriage and *de facto* divorce raises another important problem for comparative studies: should jural or *de facto* status be taken as the acceptable criterion for a marriage and a divorce, and what should be done with those societies in which the two do not coincide?

Still, it will be useful if these and other similar difficulties can be ironed out through the more rigorous analysis which Professor Fortes advocates (p. 12). When this analysis is attempted, these valuable ethnographical and analytical accounts will help to bring home to the would-be comparative analyst some of the pitfalls involved in classifying data into categories which may not be wholly adequate to the material, and in attempting comparisons of institutions or societies which may reveal essential differences. This is a stimulating book, and the issues that it raises are of importance for all concerned with the study of tribal marriage.

M. L. PERLMAN

A Grammar of Human Values. By Otto von Mering. Pittsburgh (U.P.), 1961. Pp. 288. Price, cloth \$4.50, paper \$3.50

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Otto von Mering, believing very firmly that values are as amenable to scientific treatment as are facts, has set himself the special task of developing valid, meaningful and yet reliable research tools with which to investigate them. His research report forms in fact part of a comparative study of values carried out by a whole team of social scientists under the direction of Clyde Kluckhohn, John Roberts and Evon Vogt and sponsored by Harvard University's Laboratory of Social Relations.

In pursuit of his goal von Mering selected two communities, both in contact with the Navaho Indians, one of these communities being held together by common ties to the Mormon Church, the other consisting of immigrant homesteaders from Texas.

The author used principally the group discussion method. As a theme for discussion, from which he later extracted expressions of value statements, he chose the problem of the Navaho Indians' adjustment to the white culture. From each of the two communities he selected ten different groups of three subjects, all men between the ages of 25 and 55. Each group discussion session lasted for about one hour and was introduced by a standardized and tape-recorded 'stimulus conversation,' designed to set the discussion going.

From an analysis of the attitudes, views and opinions expressed in these discussions, the author constructed four major value categories, or, as he called them, 'realms of value experience'; these four realms then made up what he describes as the 'grammar of human values.' (This seems to me to be a somewhat grandiose title, for there are undoubtedly other dimensions of value judgment apart from those selected in this study.) Briefly these four realms of value experience are:

1. The simplistic value realm: Here the values are rigid, limited, extrapunitive, extrovert and essentially particularist.
2. The isolative personal value realm: where the ideals are competitive, authoritarian and based on power, position and status.
3. The inclusive inter-personal value realm: values are relativistic and the emphasis is on reciprocity and relationship.
4. The comprehensive value realm: these values are founded on liberal and humanist principles.

Von Mering found that the first two value realms tend to inter-correlate positively with each other, but negatively with the third and fourth value realms. The first two value categories appear to depend upon splitting techniques which separate off sharply in-group members from out-group members and they rest on the need to categorize, to deal with absolutes and to rely on concrete and situation-bound experience. The third and fourth value realms on the other hand are essentially relativist and universalist and depend on situation-transcending, higher-level abstractions.

The author was interested primarily in the development of methods for measuring value profiles generally, rather than in the discovery of any real differences in the value pattern of his two experimental communities—though he seems to have found that the Texan homesteaders, relating to the Indians in the role of employer to hired hand, are more liable to simplistic, the Mormons, meeting the Indians as trader to customer, to over-all value experiences.

This monograph presents us with a fascinating problem and with interesting research methods. Yet it fails to hold one's attention. This is undoubtedly due in part to the author's style which is extremely cumbersome; he seems determined never to use an existing expression if a new one can be coined. I feel sure that he would benefit greatly if he followed the advice of the British psychologist, C. A. Mace, and devoted some of his time to writing books for children. Nor is the actual structure of the book clear and satisfactory. Though he has set out the plan of the book in his Preface, it is by no means easy to find one's way about in it. It needs quite a bit of research to disentangle what is hypothesis and what is a research datum, which category has been arrived at by logic and which by observation. Nor do the results necessarily bear on the questions which he posed. Thus he is very interested in the generalized aspects of the problem of 'value' and he suggests, for instance, that a value pattern enables people to experience their personal identity, that it is a means of making the world and the things and people in it appear predictable and accessible to reason, and that it enables man to face the paradox of his essential solitariness within a web of relatedness to others; but these generalizations are not really linked to the actual data which he obtained. He thus leaves us with a gap between data and speculation.

In his recently published book *Man's Picture of his World* Money-Kyrle suggests, on the basis of his psycho-analytic theory and clinical experience, that there are three stages in the development of our model of the world: In the first stage ideas and impressions have not yet been differentiated; hence reality and phantasy remain confused and there is as yet no extension to time or space. In consequence the picture of the world is monistic and confined to a 'specious present.' In the second stage ideas and impressions begin to be differentiated and so the perception of the world becomes realistic; but there is still no reflecting self-consciousness and therefore no perception of psychic reality. In this second world model objects are endowed with elementary feelings, but they have as yet no sentiments or minds. This, Money-Kyrle suggests, is the world of the extreme behaviourist and it is defended by techniques of repression and manic denial. Only in the third stage is added the capacity to observe as if from outside the 'psychic self' and that

implies the capacity to think of the relation of thought to what the thought represents.

It seems to me that the characteristics ascribed by Money-Kyrle to these three different stages in the development of our world picture overlap with those that von Mering attributes to his four 'realms of value experience.' Thus the simplistic value realm with its emphasis on rigid, particularist attitudes based on situation-bound experiences appears to result from fixation to Money-Kyrle's first stage; the isolative personal value realm, being much concerned with authority and power, and avoiding, so it would seem, potential experiences of weakness, dependence or depression, emerges from Money-Kyrle's second stage, while the 'inclusive inter-personal' and the 'comprehensive value' realms seem to depend on the achievement of Money-Kyrle's third, or as he calls it, 'dualistic' stage.

The correspondence of these two models, arrived at by work and thought in two different scientific disciplines, naturally increases their plausibility and makes the present research results appear more valid. I seem, however, to have detected in von Mering a value preference in favour of the 'inclusive interpersonal' and the 'comprehensive' value realms. This could possibly have affected his analysis of the informants' discussion material. I think it almost impossible for any thoughtful and sensitive person to be really quite neutral on the question of values. I myself certainly share von Mering's apparent value preference, and this preference does indeed seem to conform to the third and most sophisticated world model proposed by Money-Kyrle. Nevertheless in order to safeguard objectivity as much as possible in a research of this kind, an investigator should make his predilections explicit not only to himself but also to his reader.

Innumerable interesting questions suggest themselves as one reads this book and mulls over the problem of 'value.' I would quickly pick out two or three which obviously need a great deal more thought and research:

(a) How are 'value,' 'attitude' and actual behaviour inter-related? How much does the research situation itself—personal interview, group interview, location of interview, rapport with investigator, etc.—affect the results that one obtains?

(b) Does inter-group contact always lead to a shift from particularist to universalist value patterns, as von Mering believes? If such a shift is not inevitable can we discover and describe the conditions that would favour it?

(c) Might parallel studies of comparative ethics, perhaps following in the tradition of Hobhouse, Wheeler, Ginsberg, Westermarck, Macbeath and others, give any clues as regards the inter-dependence of social structures and value patterns?

Von Mering is one of the pioneers of the experimental study of values; his method and his general thinking are interesting; the problem which he deals with of great importance. Hence in spite of the frustrations—or perhaps because of them—this book deserves to be read and to be taken seriously. ROSEMARY GORDON

Social Life of Early Man. Edited by Sherwood L. Washburn. London (Methuen), 1962. Pp. x, 219

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These 18 papers, the outcome of a conference of 1959, make a volume of outstanding importance which is a model of how this kind of enterprise should be arranged. The general topic is neatly defined, the contributions are drawn from a wide range of specialized disciplines, and the editing has clearly been at the same time tolerant and meticulous. The only misprint noticed is in the spelling of Sauer's name in the table of contents.

There is some repetition, but this serves the purpose of showing how scholars, working often in disparate fields, are converging on the same conclusions. The evidence of artifacts is considered by Chance and Oakley, in the first instance with regard to the evolution of the brain, in the second to the development of a biologically 'unnatural' semicarnivorous habit. Oakley too has some important new observations about the early use of fire and the psychology of smoking. Speech is naturally an important topic in this general

context. Vallois analyses what little palaeontological evidence there is to bear upon it, incidentally showing that this tells against the Australopithecines having highly developed this power. Hediger, by contrast, considers it as a student of animal behaviour, and points on the one hand to the surprising versatility of animal expletive languages, and on the other to the remarkably small number of notions which human speech need employ. The evidence of art is reviewed at length by Pericot, who describes the transition in the Spanish Levant from epipalaeolithic 'ritual' designs to a more 'anecdotal' style in the neolithic. Blanc too deals with the artistic evidence about Stone Age deities in his article on early ideologies. He also puts forward some stimulating ideas, based on craniological observations, about cannibalism and theophagy. Similar evidence is mentioned by Vallois, who records as well some important notes on Stone Age demography. Schultz and Caspari discuss independently the question of individual variability in both apes and men. Its high degree in most populations, along with frequent changes of environment, may be held to account for the swiftness of recent evolution in the primates. Neanderthal man is an apparent exception, a species of standard uniformity with a proportionately diminished capacity to change. Washburn and DeVore argue from comparative studies that the Australopithecines were sociologically nearer to the ape than to man. Hamburg warns about the dangers of our excess capacity for secreting adrenal hormones, which we inherit from our ancestors who lived more dangerously. The whole book is replete with fertile observations, and its copious bibliographies add to its authority. It is a most efficient guide to the advancing frontier of this important field of knowledge, and reflects great credit on the Wenner-Gren Foundation and on all who took part in its planning and execution. W. C. BRICE

Courses toward Urban Life. Edited by Robert J. Braidwood and Gordon R. Willey. Edinburgh (U.P.), 1962. Pp. ix, 371. Price £2 10s.

162 The 16 essays in this collection were presented at a conference of 1960 by specialists on different regions in answer to five questions. These concerned (1) post-glacial conditions, the date and circumstances of (2) 'incipient cultivation' and (3) 'effective food-production', (4) the origins of the latter, and (5) the attainment of the 'threshold of urbanization.' The difference between the phases mentioned in the second and third questions is subtle and is understood in various ways by the contributors, while the fifth question is irrelevant for many of the territories which are treated. Nevertheless, the questions could have provided a broad basis for linking these regional studies, given time and rigorous editorial supervision. Unfortunately, it appears that the conference was hurriedly called, that several important areas were not separately represented—southern Europe, Egypt, Anatolia, southern Russia and south-east Asia are obvious cases—and that there was little opportunity to secure agreement on the meaning of the terms of reference. The papers therefore remain highly individual studies.

However, this volume, confusing as it may appear at first reading, is of great value in demonstrating the lines on which specialists on the neolithic problem are thinking at the present time; and the concluding essay by the editors sets out in a masterly way certain general questions which are emerging, notably with regard to the reasons for the world-wide development of microlithic tools in post-glacial times, and to the means by which the main neolithic techniques were handed on.

Clark marshals neatly a mass of new evidence from Africa, and concludes that the art of agriculture entered this continent from south-west Asia, and that the Sahara became a centre of cattle-domestication from which there was a wide dispersal of population in the second millennium B.C. Sankalia's article shows how much has been discovered in India in the last decade. Moberg, Waterbolk and Schwabedissen are all content to consider the earliest agriculture of their particular areas of northern Europe as derivative, but Pittoni makes a determined stand for the independent origin of the neolithic of south-eastern Europe. Okladnikov looks to China for the inspiration of the earliest farming in Siberia, and Chang in turn is inclined to believe that China learned the art from

elsewhere, though he does not speculate more precisely. Perrot has no doubt that Egypt received its neolithic culture suddenly and fully formed about 4500 B.C. from adjacent parts of Asia. Unfortunately, his article and Braidwood's were written before the publication of Mellaart's discoveries at Çatal Hüyük, which have provided a fund of new detail of immense significance for the study of the neolithic of south-west Asia.

It appears from Braidwood's chapter on this last region, from Willey's on Meso-america, and from their joint remarks in the editorial conclusion, that they are thinking in terms of the development, for reasons as yet little understood, over wide areas, of fairly uniform cultures, within which the next step forward, for example to agriculture or city life, might occur independently at several separate points. This notion of 'threshold' cultures of high potentiality, which may be regarded as a developed version of Ratzel's theory of invention, is the most important general idea to issue from this volume. It certainly seems now that it will prove in this study at least as useful as the search for direct lines of cultural contact. W. C. BRICE

The Disposal of the Dead. By C. J. Polson, R. P. Brittain and T. K. Marshall. 2nd ed. London (English Universities P.), 1962. Pp. x, 356. Price £2 5s.

163 Described as a 'survey of current procedure,' this standard work (first published in 1943) is 'a practical guide for all who are concerned, in one way or another, with the disposal of the dead.' The new edition is embellished with an introductory chapter entitled 'Historical Facets of the Disposal of the Dead,' which provides funeral directors (see chapter 25 for an account of the expected role behaviour) with a general account of the cultural background to their chosen profession. Other chapters give detailed information on registration, cremation, burial, embalming and transport (3s. a mile by British Railways, 1s. 6d. under 14).

Funeral rites however are given but a skimming treatment, limited to an account of the formal requirements of different religious bodies. But even in these official statements, there is something for the sociologist. The Roman Catholic Church, for example, still denies its Office of the Dead (with certain exceptions) to the unbaptized, the apostate, the heretic, the freemason, the excommunicate, the interdicted, to public sinners and to those who have died in a duel. Many societies of course mete out differential treatment at death not only to those of low status (the transgressors of moral norms), but also to those of high rank. What strikes the observer about these English rites is the way in which the priesthood itself is constantly distinguished from ordinary mortals. Blood royal apart, the Catholic Church reserves burial within the church for the Pope, cardinals, bishops and abbots. And during the burial service itself, the coffin of the priest is placed with the head towards the altar; otherwise the head is turned towards the nave.

The reader will also find interesting information on the way in which the second half of the last century saw cremation reintroduced into this country, against much opposition. But it is disinterment rather than interment which gives rise to the strangest stories, such as the very recent tale of the man who removed his mother's body from her grave and connected her to the household circuit in an attempt to bring her to life. Or of Dante Gabriel Rossetti, who, having buried a manuscript volume of poems with his wife's body, later decided that 'he wished to advance his position as a poet' and had the grave re-opened so that he could publish them. It's a free society indeed that allows its citizens to retrieve their own funeral gifts. JACK GOODY

Notes on Technology and the Moral Order. By Alvin W. Gouldner and Richard A. Peterson. Indianapolis and New York (Bobbs-Merrill), 1962. Pp. xvi, 96. Price \$1.95

164 In this example of misguided ingenuity the authors try to remove the uncertainties of interpretation from social anthropology by reducing them to three places of decimals. They take 71 'primitive' societies, mark them for 59 traits and subject the result to an elaborate statistical analysis. There is no definition

of 'primitive,' and among the societies listed at the end, though none are mentioned in the text, are Albanians, Hebrews and Norsemen.

The only indication of the authors' method is that 'when a trait was blank for 1 to 19 societies, these omissions were replaced by the median value on that trait for all societies on which there was [sic] data.' By this means, it seems, the number of societies having marriage by capture as an institution was brought up to the full 71.

As an example of their results we may take Table IV. They have picked out 21 societies with a high, and 21 with a low, level of technology, and find that seven of the former and two of the latter have a written language. They are thus able to conclude that 'societies with a high level of technology are more likely to have a written language...' No doubt, but what is meant by having a written language? The Ruwala are on the list; they speak Arabic but when I knew them were all illiterate. RAGLAN

Les mouvements religieux des peuples opprimés. By V. Lanternari, translated from the Italian by R. Paris. Paris (Maspero), 1962. Pp. 399, index. Price 18.80 NF.

165

The title of this book suggests the bias and the attempt to fit sectarianism into a common pattern that is worked out in the body of the work. The 'thousand new religions' are said to have 'in common their messianic character, their search for a miraculous liberation.' But who are the oppressed people (*popoli oppressi*, of the original)? Tropical and southern Africa are included, but not Algeria. All Indian and Negro America is there, but not the many white American sects. The 'cargo cults' of the Pacific figure largely, of course. But what are Japanese sects doing in this *galère*? The largest and most famous Shinto sects began in the nineteenth century, but were the Japanese oppressed before 1945 or were they oppressors? For that matter how oppressed have West African peoples been in this century, to have produced semi-Christian sects? Professor Bačta has recently refuted the notion that Ghanaians are more anxiety-ridden in the tensions of modern life than they were under the worse strains of tribal war and slave-raiding. He also maintains that Ghanaian sects, at least, are not Messianic or 'cargo cults.' African sectarianism is a considerable phenomenon, but Sundkler and others have shown that the sects are rarely political or a conscious revolt against oppression. They are assertions of religious independence and inspiration, and new forms of the search for healing and vigour that characterize the older indigenous religions. Stimulated by culture contact and new ideas, they need to be seen against the background of traditional religious life. The larger question of sectarianism in all religions is important, and Welbourn, in his picture of East African sects, has drawn attention to the constant factor of religious individualism. Lanternari stresses, rightly at times, the revolutionary character of movement of oppressed people, directed 'towards the future and the regeneration of the world.' But too often the sects are unconcerned with the future and preoccupied with present sins and sicknesses. Many political leaders have come from the 'orthodox' churches, which are not considered in this study of 'oppressed peoples.' E. G. PARRINDER

Volks Glaube im Bereich des Islam, Vol. II: Amulette, Zauberformeln und Beschwörungen. By R. Kriss and H. Kriss-Heinrich. Wiesbaden (Harrassowitz), 1962.

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Pp. xxvii, 245, 143 photographs, text illus. Price DM 60. Blue amulets, eye and hand amulets, in short those Egyptian amulets which were not too closely associated with the ancient gods, were readily taken over by the Muslims and are still enjoying great popularity in the Near East. Dr. Hildburgh's papers on Cairene amulets (in MAN, 1915 and 1916) are repeatedly quoted; Westermarck's theory that almost every amulet or piece of jewellery served as a protection against the Evil Eye is regarded as an exaggeration. It is estimated that two-thirds of the deaths occurring in the Near East are still attributed to the baneful consequences of the Evil Eye.

Valuable are the detailed explanations of the widespread protective letters with their amazing variety of magic formulae (words,

numbers and signs). Many of them are still being written according to individual demands. The meetings between the authors and the scribes of protective letters are as vividly described (pp. 102ff.) as is the *Zār*, that long and complex ceremony in which spirits are pacified or exorcized by means of sacrifices and ecstatic dances. The excellent photographs of the *Zār* in Cairo, which was recently arranged for the special benefit of Professor Kriss, are presumably unique. ELLEN ETTLINGER

Annotated Guide to Reference Materials in the Human Sciences. By A. K. Mukherjee, London (Asia Publ. House), 1962. Pp. xv, 207.

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Mr. Mukherjee has arranged his bibliography in two parts; the first and larger with reference to anthropology, the second to sociology and allied topics. Each part is divided into three chapters, dealing respectively with works of reference, with journals, and with basic source materials. Each chapter is further subdivided according to subjects. Altogether 1,164 works are listed, in each case with full bibliographical details and a few lines of guidance to its value and contents. Each work is given a serial number, and there are full indices according to authors and subjects. While making his collection as up to date as possible, Mr. Mukherjee has included old standard works which he considers of abiding value. Inevitably any reader will regret omissions; Sollas's *Ancient Hunters* is not mentioned, nor Marett's edition of *Anthropology and the Classics*, nor anything by Jane Harrison. But in general this collection is remarkably complete, neatly arranged and convenient to use. Mr. Mukherjee and his publishers have rendered the subject an immense service, and deserve respect and gratitude for the patient and devoted labour which lies behind this compilation. W. C. BRICE

Evolution und Hominisation. Edited by G. Kurth. Stuttgart (Fischer), 1962. Pp. 228, 47 plates and figs. Price DM 48.50.

168

This book, a *Festschrift* for Professor Heberer's sixtieth birthday, contains 18 contributions (nine in English, nine in German) on the subject of evolution in general and human evolution in particular. The more general papers deal with various topics of evolution theory. G. G. Simpson comes first with an essay on 'The Cosmic Aspects of Evolution.' By arguing that evolution on earth might have followed an infinite number of different courses, he suggests that the chance of a similar product of evolution having occurred on another planet, however many there may be, is effectively zero. More mundane, but no less fascinating matters are discussed by Mayr, Herre, Röhrs and Dobzhansky and Drescher.

Perhaps the most valuable section of the book, however, deals with an exciting advance in palaeoanthropology—the new developments in absolute and relative dating. These papers, by Kurtén, Hooijer, Kahlke, von Koenigswald and Oakley represent the best available review of the present position of this fast developing branch of palaeontology, which is of fundamental importance to our interpretation of the fossil evidence.

Finally there follow a number of papers concerning the taxonomy and morphology of certain groups: Kurth on the Middle Pleistocene Hominids, Robinson on the *Australopithecinae*, Tobias on the genus *Homo* in Africa, and Dahlberg, Grimm and Narr on *Homo sapiens* in Europe. Dart reviews his evidence for the 'Osteodontokeratic' culture of *Australopithecus*.

As a whole the papers published here form a valuable review of the subjects that they cover, and if this kind of publication is the only way that such reviews can reach the press, then such a book is performing a valuable service, though it is hardly likely to have the wide distribution of the more important anthropological journals. As a *Festschrift*, this book is exceptional in so far as the great majority of its papers needed to be written. In spite of its price, it should find a place in every anthropological library; it is a valuable reference book for the student of human evolution.

BERNARD CAMPBELL

AFRICA

Le niveau de vie des populations rurales du Ruanda-Urundi.

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By Philippe Leurquin. Publications de l'Université Lovanium de Léopoldville, Louvain (Inst. de Rech. Econ. et Soc.), 1960. Pp. 420. Price 350 Belgian francs

Dr. Leurquin is an economist who spent about five years in Central Africa between 1954 and 1958, including three years (in two field trips) studying rural family budgets. The book under review synthesizes the results of this fieldwork together with an analysis of administrative and ethnographical documents and publications. The author traces rural economic life from the pre-colonial period to the present, from a purely subsistence economy to a two-fold one which now includes money and international markets as well. The most original contribution, which constitutes half the book, is an intensive analysis of a sample of 1240 household budgets which include information on production, consumption, income and expenditure. Here the author presents an exhaustive description of his methods of research and analysis, which in itself is a useful essay in methodology. This book attests to the fruitfulness of an approach which combines historical, ethnographical and statistical material.

The budgetary analysis is directed essentially at the question: what has been the impact of the introduction of a money economy on the standard of living of rural populations? One somewhat surprising though interesting conclusion is that the cash economy, too recent and superficial, has not been able to change fundamentally the economic structure of the pre-European period.

The book contains a useful bibliography in several parts: Ruanda-Urundi, Economic Problems in Africa, Economic Problems of Underdeveloped Countries, Family Budgets, Economic History and Theory, and Others. This is a valuable study for anyone doing research in Ruanda-Urundi, and generally as a lesson in what is now coming to be called economic anthropology.

M. L. PERLMAN

Shona Religion. By Michael Gelfand. Cape Town (Juta), 1962. Pp. 184. Price £1 17s. 6d.

170

This book completes Dr. Gelfand's trilogy on Shona ritual with an account of some Korekore beliefs and practices which closely resemble those of the Zezuru described in the author's *Shona Ritual*. We find once again the *mhondoro* 'spirit guardians,' the progenitors of the tribe, each with its own spirit territory (which does not correspond precisely with extant political divisions) and served by a medium who must belong to a lineage other than that of the *mhondoro*. We find, as among the Zezuru, the shades of the recently dead, the *vadzimu*, who sanction with illness breach or neglect of ritual prescriptions and taboos within patrilineal descent groups of narrow span. Some *mhondoro* are classed as *vadzimu*, but others such as Dzivaguru appear to be chthonic deities. An interesting variety of shade called *ngozi* has both vindictive and benevolent modes of manifestation. The *ngozi* of a murdered man, using its sister's son (*dunzvi*) as a medium, exacts a girl slave as compensation from the putative murderers paid to the *ngozi*'s village kin. A benevolent *ngozi* afflicts its grandchild with illness, then is propitiated by rites which convert it into the supernatural benefactor of its village kin.

Dr. Gelfand also demonstrates that there is a close resemblance between the Korekore and Zezuru beliefs relating to an interesting category of spirits known as *mashave*. A *shave* is the spirit either of an alien who died in Korekore territory or of a baboon. Many *mashave* are described and each is the object of a cult. The adepts are persons afflicted by various types of misfortune caused by specific *mashave*. Cult membership cuts across kinship and residential affiliation and interlinks unrelated persons in joint ritual action. The talents conferred on adepts may be important—such as hunting skill for men and fecundity for women—or seemingly trivial—

such as ability to dance. Nevertheless, the combined effect of these multitudinous bonds in creating a sentiment of community must be considerable, and must to some extent counteract the divisive tendencies of descent and political allegiance.

These types of mystical beings have their analogues elsewhere in Africa. Soon, it may be hoped, the distribution of beliefs and practices concerning spirits will be plotted for the Bantu-speaking peoples, thereby providing useful clues to historical affinities and differences. Dr. Gelfand's patient recordings, made in his own time and at his own expense, of the details of ritual behaviour and liturgical form will be found to have made a real contribution to this end.

Social anthropologists will regret that Dr. Gelfand has not given his readers the structural setting which would have revealed inter-connections between many of these details. But it would be small-minded to criticize him on these grounds when he does not pretend to be an anthropologist, and when, indeed, he has gone so much further than most anthropologists in the gleaning of Central Africa ritual data before it is too late. My one personal regret is that Dr. Gelfand was either unable or reluctant to obtain exegetical texts from the Korekore on the symbolism of their rites. I would have been fascinated to have learnt, for example, why it is that the colour black plays such a prominent part (in the varying guise of liturgical dress, sacrificial beasts and fowls, and beads) in Shona rites. Among the Shona, black appears to be connected with notions of rain and fertility. Yet among the Western and Central Bantu-speakers north of the Zambezi this colour is almost universally associated with the concepts of death, sterility, disease and witchcraft. Shona explanations of black symbolism would have helped us towards an understanding of the reasons for the contrast.

VICTOR W. TURNER

Sahariens et Sahéliens du Tchad. By Albert Le Rouvreur. *L'Homme d'Outre Mer, Nouvelle Série* No. 5. Paris (Berger-Levrault), 1962. Pp. 467, 60 tables, 8 text figs., 32 maps, 31 photographs, glossary. Price N.F. 60

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The Republic of Chad contains two types of population living in distinct ecological settings: mainly sedentary, negroid, animist, farming people in the southern orchard bush country, and mainly transhumant or nomadizing, nilotic and islamic people in the northern part which is twice as large and shades from savanna into desert, the plateau of Waddai, and the mountain ranges of Ennedi and Tibesti.

This work is concerned with the second, northern part and its people. It is divided geographically into the Sahel or coastal region (in relation to the Sahara, regarded as an ocean) and the Sahara proper. In the Sahel, which contains Lake Chad, rainfall is regular and attains an average of 500 mm., cattle is bred and millet cultivated. In the Sahara rainfall is irregular and even in the mountains does not exceed 100 mm., soil culture is confined to the oases, and stockbreeding to camels and goats.

The sub-Saharan savannah belt was the way by which successive waves of immigrants penetrated the African continent from the Nile and from Arabia, and Chad contains many population groups which, as the author argues (p. 15), were left behind in the movement to the west during the centuries of fluctuating invasions, conquests and defeats, or which came to the region from the north. The result is an ethnic and linguistic patchwork of uncommon interest to the human geographer.

M. Le Rouvreur has made a systematic and exhaustive catalogue of the tribal groups and fragments, their different ways of life, their means of subsistence, characteristics, languages, and, as far as possible, their origins. One chapter deals with economic considerations common to the whole region. The book should be an invaluable guide for anyone working in Chad.

E. A. ALPORT

POLYGENIC OR MULTIFACTORIAL VARIABLES IN MAN: REDRESSING THE BALANCE

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172 A considerable part of the efforts of anthropologists during the second half of the nineteenth century was devoted to the collection of metrical and anthroposcopic data relating to living man. These records were supplemented by data relating to skeletal remains of populations. Another major part of their efforts was devoted to erecting racial classifications based largely upon these data. Subsequent discoveries, and elaborations of discoveries, notably of the principles of evolution, heredity, genetics and statistics have tended, in this century, to throw such earlier endeavours into partial disrepute, and have even caused the collection of data relating to certain polygenic or multifactorial variables in living man to be regarded with some suspicion in certain quarters.

The main difficulties in the way of a more general acceptance of the value of this type of phenotypical character in physical anthropology are, first, that as such characters are suspected to be largely multifactorial, they are resistant to current techniques of genetical analysis, and, secondly, that they are considered to be adaptive, *i.e.* subject to modification by such environmental factors as climate or diet. The tendency, therefore, in the latter part of this present half-century, has been to emphasize (perhaps unduly) the value, in determining precisely either human variability or population affinities, of the monogenetically determined character; for example, the *ABO* blood-group system, or the abnormal haemoglobin type. Such characters, being (so far as we know) genetically determined by one allelic pair, are susceptible to mathematical analysis, and the frequencies of the responsible genes can readily be calculated. In contrast to the multifactorial characters, such as pigmentation or stature, these unifactorial characters were considered to be non-adaptive, and to be free from the taint of environmentally determined variation.

It is now becoming increasingly obvious that many of the so-called non-adaptive and monogenetically determined traits are, in fact, susceptible to one form of modification or another: the association between certain diseases and the *ABO* blood-group system springs readily to mind in this connexion, as does that between the eradication of malaria and the lowering of the frequency of the sickle-cell gene in some Negro populations, or of the thalassaemia gene in Italian populations (Dunn, 1959, p. 63). The possibility that some multifactorial characters may prove to be more stable than some unifactorial ones can thus no longer be excluded (Oschinsky, 1959; Campbell, 1962), and a more sophisticated attitude towards the entire problem of what traits and characters, metrical or other, are governed by heredity and by environmental influence is now urgently needed.

Osborn and De George (1959) have recently demonstrated how this vital problem can be approached in a

meaningful manner where morphological description and anthropometry are concerned. They point out that measurements taken parallel with the longitudinal axis of the body, for example, show the highest genetic component of variability, a circumstance first indicated by Karl Pearson (1903), and they discuss the various measurements which give the 'strongest and most consistent indications of genetic variability' (*op. cit.*, p. 125), and upon which the influence of environment is apparently quite small. They stress that solutions should be sought for even the most elusive problems of multifactorial inheritance, and that the efforts of geneticists in this direction have so far been largely confined to the experimental breeding of animals and plants, and to seeking answers to simpler problems. The findings of Osborn and De George have been critically examined, and compared with those of others working on the same problem, by Dobzhansky (1962, pp. 83-85) and Vandenberg (1962). In Britain, a most useful contribution to the analysis of stature has been made by Tanner and Healy (Tanner, 1954; Tanner and Healy, 1956).

Another recent development which can help to redress the imbalance of significance between unifactorial and multifactorial characters is the realization that many so-called qualitative traits can be transformed into quantitative ones when examined against a different scale. Pigmentation of skin or of hair is one obvious example, but Mather (1953) has pointed out that antigenic qualities in man, although conventionally described as discrete or discontinuous characters, may themselves have a quantitative level, revealed, for example, by difference in the amount of antibody-formation or in the strength of agglutination. This suggests the possibility of the existence of modifying genes and the presence, perhaps, of a multifactorial mechanism of inheritance. An example of a metrical character considered to be wholly determined by inheritance is already known, *viz.* fingerprint ridge counts, as has been recently demonstrated by Holt (1960). There may well be many others.

One most useful outcome of genetical studies has been the fostering of the salutary belief expressed by many contemporary students of man and his variability that 'race' is an anthropological illusion and a taxonomic embarrassment (Livingstone, 1962), and that what we for colloquial convenience refer to as 'races' are merely collections of people, each breeding endogamously and living a largely isolated life, and discernible by particular frequencies of certain genes. Thus 'races' can be defined, as a matter of convenience, at various levels of size and organization, ranging from 'major races,' corresponding to *Europiforms*, *Mongoliforms*, *Negriforms*, etc. (Trevor, 1955), to 'geographical races,' *e.g.* *Amerindians*, *Polynesians*, etc., 'local races,' and 'micro-races' (Garn, 1960, pp. 116-32).

The evolution of man, however, implies a continuity of change. Man has already evolved to an extent definable by his contemporary genetical differences, and (if permitted to do so) he will go on evolving. It is this fact of the continuing process of evolution, whether expressed through adaptation, through selection of many kinds, or through the manifestations of plasticity, that makes it important to continue to record the many multifactorial characters possessed by man today, as well as unifactorial ones. 'Ongoing evolution' (Lasker, 1960) implies divergence, and much of known human divergence may now be irreversible. Barriers to interbreeding are breaking down on a world-wide scale, and the hybridization of human groups can be observed, for example, in the countries of Central and South America, in South-East Asia and parts of Africa, as well as, on a smaller scale, in Australia, the U.S.A. and Britain. There are several recent studies recording the morphological and genetical aspects of such hybridization, notably, in Britain, the work of Harrison (1957) on Negro-White hybridization; and a critical analysis of all reliable anthropometric data relating to a number of recently formed hybrid populations has been carried out by Trevor (1953). But evolution may also bring in its train the disappearance of population groups, and this is another reason why there is an urgent need to continue to measure and record many multifactorial variables for peoples who, as groups, are disintegrating and vanishing in the wake of the progress of the remainder of humanity. Surely it is as relevant and as important, in terms of the description of human variability, to ascertain the morphological characters of such a population, for example, as to record their ABO and other blood-group frequencies?

The most important claim to attention, however, possessed by the multifactorial or polygenic characters, is that they make up by far the larger part of the corpus of genetical variation in man. In the light of this preponderance, it is unreasonable to exclude such characters from consideration as indicators of affinities between peoples simply because their mode of inheritance is not known or is imperfectly known. To confine criteria of affinity to a relatively few monogenically determined traits would seem to be an unnecessarily restrictive technique, and one that largely ignores disparities in actual taxonomic value.

The difficulties in the way of attempting full descriptions of human populations are, of course, enormous, as has been recently re-emphasized by Barnicot (1963). He cogently points out that in order to establish the clines between peoples that are the true expression of much human variation, sampling procedures would have to be much more systematic and widespread than they have been in the past, and the labour involved in a comprehensive survey would be immense. (The sheer magnitude of the tasks confronting the astronomer or the cosmologist, however, does not appear to deter him in his self-imposed task of recording and describing what he can see.) The essentially clinal nature of much anthropometric data has been lucidly demonstrated by Roberts (1954) in his study of the modern Cretans measured by Hawes.

It is opportune, however, in terms of future analytical tactics, not to abandon or neglect multifactorial characters simply because contemporary techniques cannot elucidate their precise mode of inheritance, or because the task is formidable, for surely any contribution to our knowledge of these aspects of human variation is better than none, and even an *ad hoc* approach is better than a negative one. There is no reason to suppose, either, that satisfactory mathematical analysis of multifactorial characters will always elude the efforts of the geneticists.

In the meantime, the most practical compromise leading towards the maximum utilization of the available data relating to human variation is the technique of multivariate analysis of batteries of morphological and genetical characters. Studies of this kind have already been pioneered by such workers as Sanghvi (1953), Hiernaux (1954) and Pollitzer (1958), and the application of Mahalanobis's D^2 statistic to the analysis of discontinuous variables in man is a feasible extension of current statistical procedures and one that would earn the gratitude of many physical anthropologists.

In conclusion, it should be stressed that many workers in the field of human variation are, of course, very much aware already of the interrelation of the two types of data and of their value. Many have already emphasized the need to strive for completeness in the description of human variation. Notable amongst such in Britain are Weiner (1952, pp. 394-406) and, more recently, Mourant (1961), who expressed this attitude with clarity and with commendable fairness to both sides. The widespread contemporary interest in this dichotomy has been amply demonstrated in the published discussion that followed the recent articles of Wierciński (1962) and, particularly, of Bieliński (1962).

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SHORTER NOTES

Notes on Some Animals in Zandeland. By Professor E. E. Evans-Pritchard, F.B.A., Institute of Social Anthropology, Oxford

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I suppose that there will soon be little wild life to speak of left in Africa outside a few reserves. In some parts the larger fauna have already almost entirely vanished, as in most of Ghana. So much of African thought is based on observation of beasts and the relationship of men to them, as, for example, what is expressed in proverbs, that with their virtual extinction some of what now has meaning may become unintelligible without explanatory aids. It is therefore incumbent on those who have had, or have, the opportunity of recording native observations on, and classifications of, their animal environment to publish these records. These notes are a small and preliminary contribution to the subject. The texts quoted were taken down by my clerk Reuben Rikita or by myself, from an informant called Kisanga, except the last, which was dictated by a provincial deputy, Ganga.

Azande broadly classify animal life into *anya*, animals (mostly mammals), *azile*, birds, *awo*, snakes, *atio*, fish and *agbiro*, insects. Reptiles, except the snakes, tend to be described as *anya*, animals, if they are large and as *agbiro*, insects, if they are small. The iguana (*keare*) was described thus: *nyakpatabe du, kina kuru aboro na li ru mbata. kporokonyo nya nga u, ka paranga li ru ka ni angara nga wa sa ya; ono avere aboro na li kare dunduko na ade a. ono aboro sa sa na kpi nyemu ka e ru. u na li angenze, akaka; u na li age bangili ime; u na li agu age nga atumbu na gu pamananghawiso.* 'It is one of the animals with pads. In the past only elderly people ate it. It is a sluggish animal, and it was thought that were a young person to eat it he would not be alert any more. But today everybody eats iguana, including the women. Just a few persons choose to refuse it. It lives on snails and ants; it eats termites in the water; it eats the termites called *atumbu*, which swarm at dawn.' On the other hand the tortoise (*dagodo*) was described thus: *gbiro du na sisi ru auru, boro ru ki du vuru sisi ru yo, na ndu ru bama, na wili gbangi li ru. meme ru wa kina meme kondo. dundu aboro na li ru. ambari na kura rogo ru, kina yo na gina ru. u na li rute na wili agbiro.* 'It is a small creature (insect) with a shell over it, its body being within its shell, and it has four legs and a longish head. Its bones are like those of a hen. Many people eat it. Members of the Ambari clan change into it [at death] and so they abstain from its flesh. It feeds on mushrooms and insects.' The toad is also spoken of as a *gbiro*, 'insect': *gbiro du nga u ni kpatafura ru, na gbaragibaragi li ru, na sumbudasumbuda bangili ru. gbinza ade na li ra gbe, u na ra sende yo. u na li akaka na dundu wili kakai agbiro.* 'It is a squat little creature (insect) with a spreading head and protruding eyes. Old women eat them much. It lives on the ground. It eats ants and other small bitter insects.'

Azande divide the larger game animals into two colour classes, *bi* and *zamba*, words sometimes translated black and red, but here

to be more liberally interpreted as dark and light or perhaps dull and bright. This division has some ritual significance in that the light-skinned beasts, or at any rate the more brownish among them, are forbidden flesh to certain people at certain times, more particularly to boys who have recently been circumcised. The interdiction lasts until a rite has been performed by which the animals are darkened (*bisi*). Some of the chief dark animals—there are others—are buffalo (*gbe*), waterbuck (*mbaga*), roan antelope (*biso*), black pig (*mukuru*), digdig (*gbafu*), blue duiker (*mvuru*), elephant (*mbara*), rhinoceros (*kanga*), reed-rat (*remvo*), Abyssinian duiker (*mbio*), wart-hog (*zigba*), otter (*ngurunguru*), porcupine (*nzingini*). Some of the chief light animals—again there are others—are bushbuck (*gbodi*), hartebeest (*nzungba*), oribi (*ghanghalla*), red-flanked duiker (*kpan-gbaningba*), Uganda cob (*ngbimo*), bongo (*mangana*), red pig (*zumburu*, *zukurure*), ground squirrel (*hadari*), hippopotamus (*dupo*), thiang (*tanga*) and ant-bear (*garawa*). It will be observed that Azande do not always see shades quite as we do. For example, we might, were we to make a similar division, put the roan antelope with its rufous coat and the Abyssinian duiker with its yellowish-grey coat in the light class, and the bushbuck, at any rate the male, with its dark chestnut coat, and the red-flanked duiker and the Uganda cob, which are deep chestnut red, in the dark class.

Within the classes of beasts—animals, birds, etc.—different 'species' are designated by reference to some prominent feature, though in some cases an animal may come under more than one designation. The *anyalinde*, the animals with teeth, the beasts of prey, include such beasts as the lion (*bahu*), the leopard (*mama*, *moma*), a cat (*paka*) and the genet (*mbili*). Here is a description of the lion: *u nga kere nya linde ni mvugbo ru na bakere li ru. tu ru ni didi e, na rukutu bangili ru. u ni kiki ru ku ali ki umba ku sende, na gbangi sa ru, kikindigi lindi ru. u na zia anya dunduko, kina mbara ki gasi ru mbiko kia ru. kina abakindo na kura rogo ra, u na li kina pasio dedede, na pasio aboro a.* 'It is a powerful animal of tooth, tawny in colour and with a large head. Its ears are small and it has very small eyes. It is broad in front and tapers to the tail, which is a long one, and it has large teeth. It preys on all beasts and only the elephant can surpass it, because of its size. It is kings who change into them [at death]. It lives entirely on flesh, including the flesh of man.' Of the leopard it was said: *u nga nya linde wa kina bahu. u ki du ni mbaka-mbaka koto ru, na kiki li ru, na didi tu ru, rukutu bangili ru. u na guguru ndu ru, na gbangi sa ru. u na zia anya dunduko, kina gbe na mbara na gasa ru, mbiko kindiga ami, u na li kina pasio dedede, na pasio boro a.* 'It is a beast of tooth like the lion. It has a spotted coat and a large head, short ears and small eyes. It has short legs and a long tail. It preys on all animals, only the buffalo and the elephant surpassing it on account of their size. It lives on flesh, including that of man.' On the other hand, while the leopard is usually described as a beast of tooth, though it is also one with pads, the hyena is generally described, like the already mentioned iguana, as one of the beasts with pads: *u nga nyakpatabe wa kina mama, ono u*

ni mvugho ru, na kikindigi ze ru, u mbembedi wa angu, mbiko tu ru wa kina ga angu. iradi nga u, u na zia anya ni sa ru, ono u na li furu anya dunduko. 'It is an animal with pads just like the leopard, though it is light-coloured and with large spots. It closely resembles the dog, for its ears are just like a dog's ears. It is a thief. It hunts animals on its own but it also eats the rotten flesh of all beasts' (those killed by other animals).

Another class of animals is that of those with hooves, the *anyasukutu*. To it belong such beasts as the waterbuck, the didgidig (or dikdik), the red pig, the warthog. I cite two descriptions as examples. The red pig (*zumburu*): *nyasukutu nga u, wa kina zigba, u na imo boro a ima wa kina zigba, lindi ru ue pangba ru, li ru wa kina ga zigba, na guruguru ndu ru—u wa kina zigba dunduko, u na li diki, du wa mele, na nzende, na baniongo, na gbara, na gbanda; agi ae re si zumburu a li.* 'It is a hoofed animal, just like the warthog. Like the warthog, it can kill a man. Its two tusks are on each side of it. Its head is like that of the warthog, and also with regard to its short legs—in all respects it resembles the warthog. It feeds on the *diki* yam, which resembles the climbing yam, and the yams *nzende*, *baniongo* and *gbara*, and manioc; it is these things that the red pig eats.' The waterbuck: *u nga wene nya mvuo yo, kiki nya du wa mbembedi na gbe, ono ani rogo gbe ue, u ni bi nya na gbanda li ru yo, na pusi rumburu ru, abakpaku na kura rogo ru, ono i la li ru a li dunduko, aboro na li ru dunduko mbiko wene pasio nga u ti aboro dunduko.* 'It is a fine beast of the bush. It is a fat beast resembling the buffalo, though the buffalo is twice the size. It is a dark-skinned animal with a longish head, and it has a white rump. The Abakpaku clan change into it [at death] but nevertheless they all eat it. Everybody eats it, for it is excellent flesh in everybody's opinion.'

Another class of animals are the *anyaali* or *anyangu*, the beasts on high, which live on trees, the chimpanzee, the colobus monkey and the rest of the tribe of monkeys. Of the chimpanzee (*bawamu*) it was said: *u nga nyaali ni bibili wikowiko kpoto nya, u wa kina boro teketeke na kpokpu ru, bangili ru, lindi ru, ngba ru, be ru, ndu ru, na ga u sungo na ga u manga apai dunduko.* 'It is a high-living beast with a dark hairy body. It is just like a man in its face, eyes, teeth, mouth, hands and legs, and its way of sitting and all its ways of doing things.' Of another monkey, the *ngarangara*, an undetermined species, I was told: *u nga nyaali ni mvugho ru, na bangili ru wa kina ga boro, kpakpu ru a wo, tunga ra tona ti kina abawamu sa, u na li ngbaya na dungu ngbatunga ga azande liae du, u na li ndaru na bakake, dungu lindi angwa mvuo yo, wa zamba nonga, aboro na li ra ni dungu yo, ono dunduko te, aboro pavuru wele yo ga yo pasio nga kina nyaali sa.* 'It is a high liver, light-coloured and with eyes like those of a man. They belong to the same family as the chimpanzee. It feeds on maize and all sorts of plants that Azande cultivate. It also eats the fruits of the rubber vine and the grape vine and many fruits of trees in the bush, such as the red ground fruit; many people eat them, but not all. The people who live on the banks of the Wele river, their main meat supply is the flesh of monkeys.'

A small class are the *anyaime*, the water creatures or amphibious creatures. The crocodile of course belongs to it: *u nga nyaime na ra ime yo, gbanda nya du ni nya kpatabe, na ngongo auru; keturuketuru kpoto ru, na gbanda sa ru, na gbanda li ru; dungu lindi ru da kina go ru yo; sumbudasumbuda bangili ru, aboro na li ngondi ni dungu yo, ono dunduko te, mbiko kpayakpaya de nga u, ima ru na zia boro a zio, kpoto ni ki du a du keturuketuru.* 'It is a water creature which lives in water. It is a long beast of the sort with pads, with a spine on top of it; it has a rough hide and a long tail and a longish head; and its many teeth go right down to its gullet; and it has protruding eyes. Many people eat crocodile, but not all, for it is a withered hag and its vengeance may cause a man's body to become knotty.' This class includes four creatures which, so far as is known, do not exist outside the imagination: the water leopard (*mama ime*), the *wanga*, the rainbow snake (*wangu*) and the *ndutu*; and possibly a fifth, the snake *ngambue*. The water leopard was thus described to me: *mama ime nga lika kere nya, ni bi ru, na umu kpoto ru ni bi e, mangle li ru zawizawi ku go ru, kpatabe ru kpakapu na gigitri kpabe ru wa kina ga boro, kere lindi du ngba ru yo, u na zia boro wa ngondi, u na kura kina rago hili ime, bangili ru ni kikindigi e wa ndika nzuo ni zamba a, u na ra kina yaro yo wa kina ngondi, ono o du u ni, kina ime du yo, na dungu atio pati ru, gu ime re, ka si a uguda nga wa sa ya,*

mbiko kpuru du. 'The water leopard is a powerful kind of beast, dark and with a blackish skin and a head of hair shaggy to the neck. It, pads are very large and its palms hairless like those of a man. It has powerful teeth in its mouth. It seizes a person as does a crocodile. It appears in places of deep water. Its eyes are very large and red, like the seeds of the *nzua* vegetable [like tomatoes]. It lives in holes as crocodiles do, but where it resides there is water and many fish near it. This water never dries up, for it is its home.' I was told also that it has hair like a man's which falls over its body. Major Larken says that the water leopards 'are said to live in deep pools of large rivers, and big fissures in the banks have often been pointed out as being their homes' (Major P. M. Larken, 'An Account of the Zande,' S. N. & R., 1926, p. 54). What are we to make of this monster?

As curious is the *wanga*: *wanga nga nyaime, du na gbanda saranga ru, u na zia aboro na ni, u na zia boro ka ndu na ni ku rogo ga u yaro yo; u ki ta zoga ni yo ki ni ndu ka yemba ba ngere u ye ka sara vuru boro ni lindi ru, mbiko u a lengba nga na sara vuru boro wa sa te.* 'Wanga is a water beast, with a long mane with which it catches people. It catches a man and takes him to its hole; and when it has put him down there it goes to summon a large crab to split open the man's belly with its teeth, because it cannot split open a man's belly by itself.' In another account it was described as having a beard like a spider's web in which it entangles men to draw them to it to devour them. Their only chance is to sever the web around them with a knife. Major Larken says, in the same place, that it is 'a kind of lizard with a smooth skin like a fish,' that it has breasts, and that it inhabits only the Congo or the Nile. Of the rainbow snake it was said: *wangu nga wo, ni lika wo, ni gbanda ru, a nga wo sa lengbe na bagizo ru wa sa te, lika mbumbudo ru ti ni du ngungungu, wangu ni gbanda wo ni lengo, ono dungu pai du ti ru, tivuru ni bi e, na ngongo ru ni zamba a, u na za ka kura rago ki zamu a zama dunduko, ono boro na bi ru ni kina kpere, ka boro bi nga boro ru wenengai te.* 'The wangu is a snake, a sort of snake, and a long one. There is no snake to equal it in length. It has a sort of purplish efflorescence. The wangu is indeed a long snake. But much could be said about it. Its belly is black and its back is red. When it appears the world all reddens. But it is an ill omen for the man who sees it. A man cannot see its body properly' (only what appears from it). Major Larken (*ibid.*, pp. 43f.) says: 'The rainbow lives in bogs, or in cracks and holes usually at the heads of streams. It is said to be like a snake. It comes out in the rain, because it wants to wash. No tracks of it are ever found. People who see one approaching them will fly from it in terror. Some years ago, the guard on duty in Yambio fort turned out on their own account and fired some rounds at one that seemed to be issuing from a large ant heap in the vicinity. They said that if it had reached them they would all have been dead men.'

I have no text relating to the *ndutu*. Major Larken says it is alleged to be bigger than a house, by which I suppose that he means a native hut. 'Its skin is covered with a growth of grass and water weeds. Nobody of the present day has ever seen one. They live in some of the smaller streams, but mostly in big rivers like the Sue. They are so huge that they have stopped the course of that river ere now' (*ibid.*, p. 54). (I am sure that Major Larken is not suggesting that this really happened.) E. C. Gore (*A Zande Grammar*, 1926, p. 141) says that this creature 'is said to be as large as an elephant, but of great length, its back being covered with a hard armour.' A young man told me that though he had never seen a *ndutu* he had on the way to Wau seen the tracks of one which was supposed to have killed a soldier and an Arab merchant from that centre. The tracks were many yards in width leading in a continuous trail to the water.

These strange creatures, though, presumably, they do not exist, probably represent to Azande some aquatic experience. On the other hand, the water snake may be a real snake in spite of some odd characteristics claimed for it: *u ni gbandi ngbafio kpoto ru, ni wili gbandi ni kiki ru, na ngbere ru wa ga kondo, u na kua wa kina kondo a, kere wo du, u na imo boro a ima kakaka.* 'It has a striped body, rather longish and fat. Its comb is like that of a cock, and it crows like a cock also. It is a very poisonous snake which kills a man in a moment.' Major Larken (*ibid.*, p. 54) says of it: 'Ngambue, a big snake, its skin covered with a substance like flour, and possessing a

beard, may live in all waters. The well in Yambio [an administrative centre] was thought to harbour one. Its bite is poisonous.' Canon and Mrs. Gore (*Zande and English Dictionary*, 1952 edition, p. 100) describe it as 'a poisonous clucking water serpent or snake, probably fabulous. The fable is that this snake, having bitten and killed a person, will come back and revive him.'

To continue Zande classification: the rodents form a class of their own, called *akuli*, into which come many varieties of rats—the red field rat, a rat with a pungent odour, called *ndari*, the reed-rat and others; also mice. The ground squirrel (*badari*) is likened to the rat: *wili nya nga u, wa bakere bakuli, dagba zamba yo, na ghanga sa ru wikowiko*. 'It is a little creature, like a great big rat, reddish, and with a long bushy tail.' And to this squirrel is likened another product of the imagination, the thunder beast (*gumba*): *gumba nga wili nya na amuanu kpoto ru, u ku ali wa badari, ki du ku sende wa mvungo na wikowiko sa ru, ono i a bi nga ru ghua te, kina kpere, azande ni ya kina ru na ikpiro wa we, u ki ni mo ka gumba bakere pai nga ru yo na sumbo wa bundu, kina ru du na gi fugo nga ru yo re, ga u mangua kina be ru u a sapa ngua na u; kina a u a imo boro na ni a, mbiko rarai wili mbia du na nga a yo wa nga mangua yo kpakpalikpa*. 'Thunder is a little beast with a bushy body. Its upper part is like a ground squirrel and its lower parts like a colobus monkey, with its bushy tail. But one does not see it unless misfortune is presaged. Azande say that it flashes like fire [lightning]. It roars from its mouth and explodes like a gun. It is it which has all this speech in its mouth. It has its axe in its hand, with which it splits wood; and it is with this that it kills a man also, for it has a heavy little stone as its cutting point, rectangular like the edge of an axe.' Polished stone-age axe-heads, occasionally found in Zandeland, are believed to be this weapon.

The lizards also form a category of their own, the *agara*. There are many of them and I give a description of only one, a large lizard called *bandugu* (it appears to be the same as *mayu*): *u nga zamba gara na zezerege kpoto ru na wili ghanga li ru, gbinza aboro na li ru, ono dedede te*. 'It is a red lizard with a slimy skin and a little longish head. Very old people eat it, but not often.'

The Zande classification of creatures is obviously not a systematic one; it is, as has been seen, of a simple kind; but it is a classification none the less. There are other classes than those which I have mentioned, as may be noted in an entry in C. R. Lagae and V. H. Vanden Plas's *Dictionnaire Zande-Français* (1922), my great support in the early stages of my research. Under the heading *nya* (p. 112) they list 'animal, terme générique. *Anya gido*: animaux à talons, (marchant sur les talons) [I am not sure what this means]. *Anya sukutu*: animaux à sabots. *Anya linde*: animaux à dents extérieures [I am not sure what this means either]. *Anya ghanga*: animaux à cornes. *Anya kwatabe*: animaux qui se battent avec les pattes de devant [again I am not quite sure of the meaning]. *Anya kiwe*: animaux à épines. *Anyali*: les singes.'

A category, rather than a class, of creatures is that of those which are ill-omened (*ahu kpere*). The most frightful of these is the *dandara*, a wild cat, even the sight of which may cause death. Another beast which it is an ill portent to see is the jackal (*huwa*): *u nga wili nyakpatabe, wa angu, u na ta kina yuru sa ki ni ra rame uru, pusi kpoto ru, na tu ru wa kina ga angu, ghanga wili nya kpere du, u na kpasaka yuru sengia boro na ye ka kpi mbembei*. 'It is a small animal with pads, like a dog. It moves about only at night and sleeps by day. It has a whitish body, and its ears are like those of a dog. It is a longish little beast of ill omen. If it howls during the night it may mean that a man is soon to die.' Others are the iguana (*kare*), or rather its slough (*iri kare*), which may presage the death of a relative or your own; the chameleon (*mvua*), foretelling the death of a relative; the slough of a python (*iri ghara*), foretelling your own death; the corpse of a cricetus (*kangba sumba*), foretelling the death of a relative and yours before long; and the sight of a live one may mean that you are about to suffer misfortune; a chimpanzee on the ground (though not in trees); to a lesser extent to see a tortoise is unlucky and may presage a relative's death; and some say the slowworm (*magingi, gbinghiti, bilimi*). The rainbow snake and the thunder beast have already been mentioned. A falling star (*kerekuru wa u ni ti ku sende*) might also be included for though neuter to us, in Zande it takes the animal gender.

Another category is that called *anyakorokpa*, animals eaten only by very poor people or, according to the Ambomu or true Azande, by some of the Auro, peoples of foreign stock. Canon and Mrs. E. C. Gore (*Zande and English Dictionary*, 1952, p. 110) translate the word by 'taboo, unclean beast' but I think that these are not correct terms, for the animals are not taboo, neither are they unclean if this word is used in the biblical sense. Mgr. Lagae speaks, I think also not with entire accuracy, of 'interdictions générales qui lient tous les Azande, aussi longtemps que ceux-ci n'ont pas atteint un âge avancé. Il leur est défendu de manger du léopard (*mama*), du lion (*ngbwanguru*), du chimpanzé (*gēdeyo*) [these are secondary names for lion and chimpanzee], de hyène (*zege*), du gēmbu, de l'antilope (*mangana*). Quiconque en mange, risque de ne jamais devenir fort et robuste. Seuls les vieux peuvent en manger impunément. On appelle donc ces aliments *yakolokpwo*, c'est-à-dire, objets des vieux' (*Les Azande*, 1926, p. 38). My own impression was that the words 'taboo,' 'unclean' and 'interdiction' go beyond what Azande feel about the matter. It is rather to them that people who are not old, and therefore cannot be excused, are dirty eaters if they eat of the sort of animals that Mgr. Lagae has instanced, carnivora and others (I am doubtful about that rare animal the *mangana* or bongo). This category includes many other creatures than those that Mgr. Lagae has mentioned, which no well brought-up and self-respecting person, unless he were very old, would care for it to be known that he ate them: most snakes, most birds, most monkeys (except perhaps in the tropical rain forest), the iguana, the rat *ndari*, lizards, toads, crocodiles, the jackal and most insects. I would not, however, care to dispute that in the case of some of these creatures there may be also present the idea that for a young person to eat them might cause loss of vitality.

I conclude these few notes on animals of Zandeland with a text, which I think is of interest, on multiple births and care of the young: *were, gu nya vungu ue, u nga badari na gu nya nga mama, na bau, agura na batika ni ba biata, ami nga aremvo, na kuri; ni gu rago awiri kuri biata, agura na vungu ni ba sa sa, ami nga ambaga na angbimo na agbafu na ngbandua na nzungba na mvuru, na bisa, kpanghaningba na ghangharia na gbe, agura nga anya ngua na batika ni ba sa sa nga mvungo na ngaragara na rimo, mbiro, ndakpa, na waku, na bagianya, na bawamu, ga waku pai nga u na vungu, ka u a e nga wiru ka mera ya, u ki di ru kindi ami ni ta na kina ru; na gu ru nga rimo, u na vungu ki di wiru kindi ami ni ta; na mvungo na vungu ki di wiru kindi fuo ru; na mbiro na vungu, ka u a zoga nga wiru ya*. 'Now, those animals which bear in twos are ground squirrel and leopard and lion. Those which bear young in threes are reed-rats and other rats, and sometimes rats bear as many as five. Those which bear only one at a time are waterbuck, Uganda cob, digdig, reedbuck, Jackson's hartebeeste, grey duiker, roan antelope, red duiker, gazelle and buffalo. Those tree animals which give birth to one at a time are colobus monkey, the monkey *ngaragara*, a white-nosed monkey, a small grey monkey, the monkey *ndakpa*, baboon, a red monkey and chimpanzee. With regard to the baboon, when it gives birth it will not leave its young and go off by itself. It always takes its young with it and they go about together. Likewise the white-nosed monkey, when it bears young it always takes its young with it and they go about together. Also the colobus monkey, when it bears young it also takes its young behind it; and the small grey monkey, when it bears young it will not put its young down.'

were, mbaga ni vungu ki e wiru kina ba ru, u ra ku o biata u ki ni di ru ka mungusa ru, ami ki ni li, wiru a li e na u; ki ni ta na u da o ndu ru ni nyaki ni du, u ki ni ndu na u, ki mo i ru ti mvuo yo ni iga ru, nyemu a ni ta da u ki ni ndu ka dia ru ami ni ta kina nyemu watadu yuru, du o u ni ngara ni du ki ni ta ni sa ru, were, ga gbe pai nga u na vungu ki e wiru kina ba ru wa mbaga, u ki ra biata, ki ni di wiru ka asada ta na u, u ni li mvuo, u a ni ndu ki ni poi fu ru vu ni yugu fugo ra fu ru, da o u ni ki ni du ki ni kpara ti anara ka ta ni sa ru, u na kpaya, ki ni sa ti ru ni kuru gbe, were, gu ru nga ngbimo, u na vungu ki ra kina biata ki tumba wiru ami ki ni ta na kina ru a, da o wiru ni ngara ni du nduru na ngara, were, agura nga anya sukutu du, ami na ra kina biata ki ni mo ka ta na awira. 'Now, when the waterbuck bears young it leaves its young behind for the first three days [when it goes grazing], and then it takes it to teach it to walk, so that when the mother grazes her young grazes with her. The young keeps to its mother until

such time as its legs are firm. The mother puts it in high grass to hide it, and then when evening comes the mother goes and gets her young to walk around in the evening or at night, until the young is grown strong and goes around by itself. Now, it is the habit of the buffalo when it has borne young to leave its calf in the place of its birth, as the waterbuck does, for three days, and then to take it out to try its walking. The mother grazes and as she goes along she calls to her calf 'vu,' teaching it their speech, till such time as it is big and separates from its mother to go about by itself as a fully developed animal, and then it changes into an old buffalo. Now, when the Uganda cob bears its young it waits three days and then lifts up its young and they walk off together also, until such time as the young grows up and is strong of leg. Now, all those beasts which have hooves wait for three days and then begin to walk with their young.'

were, agura nga anya linde, u na vunga, awiru ki ra ku sima yo. biata a ta da ti biama a u ki ni kusi ra ka nungusa ra, u a ni ndu ki zi kuri ki ni ye na u fu ra ani li ru. u ki ni ndu ki ni zi remvo ki ni ye na u fu ra ani li ru ka sona, ani ki ni ta na u da kina o ani ni kpaya ni ni keuru amana. guru ki ni mere ki ta a ta da kina o u ni ye ni berewe ki bi anai, da o a u ni kpaya ni ti anai kindi. 'Now, those beasts which are beasts of prey, when one of them bears young the cubs stay in its lair for three or four days, and then it brings them out to get them to walk around. It goes and catches rats and brings them to its cubs to eat, and it kills reed-rats and brings them to its cubs to eat so so that they may grow; and then they hunt with their mother until such time as they develop into full-grown leopards. Then they wander off and roam on their own though they come from time to time to see their mother; and then there comes a day when the cubs separate from their mother for ever.' were, gu nga hau, u na vunga, ka boro mbeda nga ku rogo gu rago u ni vungu ni ya; ka ni mbedi ko yo u ki zi ni fu kina awiru ani li ni. da kina o u ni rogo awiru ni rogo gu rago re, ani na ngara, ki ni kparaka ni ba ue ka zio ga ani anya wa ani a kpi nyemu e. 'Now, with regard to lions, when one of them gives birth no man would ever dream of going near its lair, and if he were to do so she would seize him for her cubs to eat. When she removes her cubs from their den they are already strong and they go off in pair to hunt animals as they please.'

were, mbara na vunga wiru ki e ru fu kina bara u ni tindi ru, nara ki ni ndu ni kina kuburu mbiko bara du na linde ni wagi ru ngboso linde ru ka ndu na u. u ta ngara u ki ni ndu ni kina ndu ru, u ki ni zura kina ngboso angua fu ru u ni li e. u a ni kuru sa ga boro ngbaya watadu ga ni boko u ki ta kata ru ni ligi wiru na ni. da o wiru ni ngara ni du ani ki du na u wa kina kuru anya sa, ka guru a banda nga guru berewe ya, mbiko u ngara. ani a ni ndu wiru ta li kina ga u liae, nara ni li kina ga u; ka bara a tinda nga ru berewe ya, u ni ta ni kina nduru ka da ti ba mbara. 'Now, when the elephant gives birth she leaves her young to the father, for him to carry. The mother just goes by his side, because the male has tusks which cross at their junction to carry it. When the young gets stronger it goes on its own feet. The parents strip off the tips of branches for it to eat. When they get among a man's maize or his pumpkins they break them off to feed their baby with them. When the young grows up its parents are just older beasts with it, they no longer guard their young, for it is grown up. When they go together the young eats its own food and his mother hers; and the father no more carries him; he walks on his own feet from now till he becomes a big elephant.'

A Bronze Snake Head and Other Recent Finds in the Old Palace at Benin.* By the late Professor A. J. H. Goodwin, M.A., F.R.S.S.Af., University of Cape Town. With four text figures

Excavations were undertaken by me¹ during two seasons (17 December, 1954–23 February, 1955, and 11 December, 1956–16 February, 1957) in the area of the old palace of the Obas of Benin, immediately east of the present palace. This older area

* The paper has been prepared for press, with some additional material, by Mr. William Fagg, Deputy Keeper of Ethnography, British Museum, with whom Professor Goodwin was in correspondence on the subject at the time of his death.

had been abandoned in March, 1897, after a disastrous fire which occurred while the British punitive expedition was in the town, when the Oba Ovonramwen was deported and confined in Calabar. This gives a final date for all material retrieved there.

Excavation in 1954 started directly opposite the European Cemetery. Finds consisted almost entirely of crushed pots, with sufficient numbers of fragments of rolled trade brass, cut tacks and staples to indicate that we were in a domestic part of the palace. It was eventually possible to discern four consecutive red-clay floors, each representing a building destroyed by a fire, leaving fragments of finely divided carbon from thatch. Following the first and the third fires the site had been roughly levelled and cleared before rebuilding the palace in hard tropical ferruginous earth. After the second and the fourth (1897) fires the walls had been allowed to collapse in the rains, and formed an earthen layer 14 inches thick, consisting of wall earth incorporating fragments of eroded pottery of early date. The break between the second and third palaces indicates either a period of civic turmoil (as in 1897) or that this wing was not needed at the time of rebuilding. It is not possible from the evidence to date the earlier three floors, or to dig deeper owing to a prodigal use of the town water supply which has yielded a 'hanging water table' in this area. The carbon may represent general or isolated fires. The only large fragments of carbon recovered (completely charred half-coconuts) all belong to the known date of 1897.

During my second season work started about 100 yards west of the earlier dig. Three preliminary pits showed no sign of floors, apart from a very recent superficial floor belonging to a corrugated iron structure. It became clear that we were excavating an open courtyard over which adjacent wall material had fallen to a depth of 12 to 15 inches and that we were within the pattern of the palace. The third pit indicated the position of the water mains laid in 1912. An area was uncovered adjacent to the disturbed earth of this pipeline. All the potsherds recovered were fragmentary and eroded, sherds caught up in the wall earth from superficial borrow pits. They may therefore belong to any period prior to the erection of this part of the palace. No complete pots, either broken or whole, were found, no charred foodstuffs occurred, and we were clearly in a non-domestic area. Charcoal from thatch indicated the fire, the usual fragments of rolled brass strip, cut tacks and square-sectioned copper staples showed that the woodwork had been plated with strips of beaten brass strip, as is still customary. Innumerable nests of termites clearly indicated the fate of timbering or doors.

At a depth of some 18 inches from surface a widespread living floor was indicated by a white powder. This consists of scattered fragments and crushed lumps of impure kaolin,² still used domestically in potmaking and still stored in large lumps a foot or so in diameter on verandahs. The falling walls had crushed and scattered the kaolin, clearly defining the surface of a courtyard within or adjacent to the palace.

On this surface, lying face upwards, two important finds were made. The first is a large bronze casting of a snake's head (figs. 1 and 2), 16½ inches long by 13 inches at maximum width; it had been broken and crushed, but was still about 3 inches deep. The bronze, where touched at one point by a digging tool, is brassy in colour, patinated to a dark green. The second is part of a rectangular plaque (fig. 3), located 6 inches away and of a more cuprous bronze. It measures 6½ inches wide by 7 inches long, and is part of a catfish plaque, originally some 16 inches in length.

The snake's head. This is smoothly spoon-shaped in its obverse aspect (fig. 1), which hardly shows the fractures and crushing visible on the reverse (fig. 2). It ends in a cast sledge at the neck. The design is almost symmetrical and is decorated by plaques or medallions which were applied in relief in wax, during its manu-

facture by the *cire perdue* process, to the otherwise smooth skin of wax destined to form the body of the cast. Two moulded bosses form the eyes, while a simple pattern of squares incised in the wax skin, each with a central dot, runs parallel to the lip line.



FIG. 1. THE PYTHON HEAD, DORSAL VIEW
All photographs: K. C. Murray



FIG. 2. THE PYTHON HEAD, VENTRAL VIEW

This head may well be the pair of one illustrated by von Luschan,³ the only appreciable difference being that each square in the pattern along the lip line contains not a dot but a small circle.

The applied medallions (recalling Ashanti workmanship common on gold-dust boxes) consist of discs formed by concentric circles, compassed about either a single ring or a trefoil of three rings. Each circle was made of square-sectioned strands of wax, about a millimetre square, applied with great precision to the skin, at radii increasing by 11 millimetres. The space between these concentric circles is filled in with rings made in the same way, set contiguously and measuring about a centimetre in external diameter. The whole forms an artistically simple *appliqué*, which, however, involved expert workmanship in wax prior to casting.

Three of the discs so formed were complete circles when made. One lies in the centre of the forehead, the central ring containing a rivet hole. One lies at each extreme of the maximum width, each carefully adapted to the strong curvature of the 'shoulders' forming these extremes. In the mid line, bisected by the selvedge of the neck, is a smaller, semicircular *appliqué* of similar design. The craftsman has used two rings to conceal the rivets. Between this example and the left shoulder is the only asymmetrical element of the design. It is a similar *appliqué*, once semicircular but broken away by a fracture continuing to the lower jaw. This asymmetrical element probably led to the obliquely attached body of the snake, and was intended to blend the otherwise symmetrical head and the oblique junction with the snake's body into an artistic unity.

Typical of the lack of sympathy between artist and artisan are two gaping holes, 15 millimetres or so in diameter, towards the neck. These were intended to attach the head of the palace roof probably above a doorway, by means of square-cut iron nails or pegs. Above the left hole a triangular scratch, two millimetres across, was made by my labourers when encountering the find.

In this example the heavily embossed eyes are plain and without an iris, but there is a suggestion that they were more highly polished than the skin of the snake. Each is surrounded by a raised band composed of three parallel strips of which only the central one is lightly hatched to resemble a twisted cord.

The lines forming one component of a chequer board parallel to the mouth follow the lip line and finally disappear under the two lateral discs; the other component is made of lines running radially to the body of the casting. The squares are about a centimetre across and each has a central pit about a millimetre in diameter. The incising of both lines and dots was done on the wax before casting. The whole forms a texture rather than a design and smacks of the school arithmetic book; scales may be intended, but they can hardly be regarded as represented.

The reverse aspect (fig. 2) is again smoothly spoon-shaped, and the body of the bronze skin is perhaps two to three millimetres thick. At the neck is a crude strap of brass, broken off level with the selvedge and also at the rivet hole which coincides with the central hole in the medially placed *appliqué*. The rivet has gone, but two rosette-faced rivet heads suggest that the original master rivet was intended as a decorative centre to this *appliqué*. Two other bronze rivets remain *in situ*, cunningly concealed in the design of the semicircular plaque in the mid line. The strap was clearly meant for the attachment to the body of the snake.

About 50 small teeth, each a centimetre high with a similar basal circumference, belong to the upper jaw. Some have been miscast or have broken. The bulk of the lower jaw has broken away, only the spring of the right-hand portion remaining. No fragments were recovered. The jaw contained a similar pattern of regular teeth, and must have been fairly widely open.

Serpents of this type are known from written accounts⁴ and

depicted on bronze boxes in the Berlin⁵ and Liverpool Museums⁶ and on plaques in the British Museum and the Berlin Museum.⁷ Some 12 other examples are known, several of them being reproduced by von Luschan.⁸ The snakes were suspended head downwards on the sides of turrets over the main entrances to the palace. In both the boxes and the plaques there is a suggestion of wood-shingled roofing, quite out of keeping with traditional palm-leaf thatching. Ling Roth rejects the evidence, but while I have been unable, except in response to leading questions, to get any confirmation of the use of shingles,⁹ the British Museum plaque seems wholly convincing. It shows heavy nails holding alternate shingles, thus clamping down an underlying series.¹⁰

Replies to questions as to the body of the serpent varied rather considerably. As known heads are clearly by different craftsmen and possibly made at widely different times, it is possible that the construction and make-up of the bodies may have differed also. The clearest evidence (obtained for me by Dr. R. E. Bradbury) is that of Chief Osuma, who was a page in the Oba's court at the time of the punitive expedition. He said that the snakes were made up of thin tubes of cast bronze in short lengths, not of thin plates of imported brass. Loose sections of more than one serpent were left lying about and these were solid enough to be used by the pages as 'duckboards' for standing on while washing their feet. These short lengths (presumably of semi-circular section) were threaded together on a rough wooden frame for hanging on the front of turrets.¹¹

No portion of the lower jaw was found. It is possible that this head was already broken down before the British occupation, and dragged to a secluded courtyard by a page, or that the jaw had been recovered during laying of water mains two feet away in 1912, and was sold or melted down. The head has certainly been violently broken, presumably by a falling wall or by itself falling from a height, but bears no mark of the fire which swept part of the city in 1897. It may well have been discarded as 'junk' early last century, and may date from any phase of Benin art.

Descriptions from all informants add that a metal tongue protruded from the open jaws of these snakes and wagged in a life-like manner in any breeze. This is unlikely to have been an extension of the broken strap of brass set on the reverse aspect, but more probably consisted of a balanced blade, pivoted for free movement at the centre of equilibrium.

The catfish plaque. The second find, showing the tail of a catfish or mudfish (fig. 3), is part of a plaque of more cuprous metal. The conventionalization is usual, except that the three components of the tail are shown as almost equal finger-like processes. The central one has a pair of medial lines, and the dorsal fin is not present on the surviving part of the original. At the proximal root of the finger-like processes is a pattern of conventionalized scales, each consisting of an approximate square, set diagonally and giving the impression of overlap. At the proximal corner of each scale a smaller stippled square has been incised. The three processes are strongly hatched in bold incised line, showing the pleasant enthusiasm of an artist rather than the meticulousness of a craftsman.

The background of the plaque is decorated with the simplified two-leaved version of the quatrefoil design which is present on all but a very small number of the rectangular plaques; as usual the space between these designs has been stippled with loose dashes, but only outside the incised design. All the incision has been done on the wax before casting.¹²

Other finds. Three further finds presumably belonged to an altar to Ogun, the god of iron, set against the western wall of a wing of the palace and 18 feet north-east of the snake's head in the same courtyard. The first was an iron scimitar-like blade,

typical of the *ada* shown in Benin bronzes and still used for ceremonial occasions; it had presumably had a wooden handle and is of little interest.



FIG. 3. PLAQUE FRAGMENT SHOWING FISH TAIL

Next to this was a bronze-handled iron dagger (*adebo*) of great beauty (fig. 4). The handle is about four inches long and made up of a design of a series of annular ridges, each about 1/8-inch across;



FIG. 4. DAGGER WITH LEOPARD-HEAD POMMEL

the central ring is slightly raised above the level of the others. The top of the handle shows a very lovely leopard head, ornamented with circles imprinted on the wax. The teeth are recurved in much the same way as those of a wild boar.

Lying directly beneath this was an *ava* or Ogun hammer, L-shaped and of a type still in use today.¹³

Notes

¹ I was able to undertake the work at the kind invitation of the Nigerian Antiquities Service, and with the co-operation of the Oba of Benin and the Benin District Council Museum, under the curatorship of Chief Jacob U. Egharevba. For the purposes of the second visit I obtained a grant from the Wenner-Gren Foundation, covering air travel from Cape Town and photographic materials. For part of that visit I was associated with the Benin Historical Research Scheme. For these and other kindnesses I wish to express my appreciation and thanks.

² Ritually kaolin is at Benin a symbol of submission: on the accession of a new Oba, annually during his reign and at moments of crisis (as in 1897) pieces of it were sent out formally to subsidiary chiefs; its refusal was a declaration of rebellion or secession. It is therefore not out of place in a palace courtyard, more especially in one dating from the British punitive expedition of 1897, when loyalties needed sudden testing. Kaolin is also freely used in some of the Benin cults.

³ F. von Luschan, *Altertümer von Benin*, Berlin, 1919, Plates LXXVIIIb and LXXVIIIc. In these plates and in his figs. 503-7 he illustrates all the known types of snake head from Benin: the two main types are those with a smooth face (like that described in this article) and those which are scaly all over (like one acquired by the British Museum about 1956). A greater tendency towards rococo decoration in the latter suggests that they may be of later date (e.g. of the eighteenth century). In that case, the head here described may be of the seventeenth or even the late sixteenth century.—W. B. F.

⁴ See H. Ling Roth, *Great Benin*, Halifax, 1903, pp. 162-75. It is fairly clear that the snakes represented in all these bronzes are pythons, and while no python cult has been reported from Benin, it may be noted that such cults are common and important among the Ijo and other tribes of the Niger Delta to the south and south-east of Benin; at Benin itself they are probably to be regarded as power symbols.—W. B. F.

⁵ Von Luschan, *op. cit.*, Plate XC.—W. B. F.

⁶ Ling Roth, *op. cit.*, fig. 161.—W. B. F.

⁷ W. and B. Forman and Philip Dark, *Benin Art*, London, 1959, Plate I, or C. H. Read and O. M. Dalton, *Antiquities from the City of Benin*, 1899, Plate XIX, 3; and von Luschan, *op. cit.*, Plate XL, or William Fagg, *Nigeria: 2000 Jahre Plastik*, Munich, 1961, Plate XXXIII. All these show that the shingled towers to which the bronze pythons were attached were surmounted by bronze representations of the bird with wings outstretched (and what appears to be the foot of one of these large birds has recently come to light in Benin, as Dr. Bradbury tells me).—W. B. F.

⁸ See note 3 above.—W. B. F.

⁹ In December, 1958, Chief Osuma (who has since died) told Dr. Bradbury and myself that he well remembered two buildings at Benin being still roofed with wooden shingles up to the death of Oba Adolo in 1889, one being a building within the palace and the other a shrine of Aru-Osa in another part of the town; we gathered that they disappeared with the accession of Adolo's son Ovonramwen. Mr. Z. R. Dmochowski, architect of the Federal Department of Antiquities in Nigeria, has pointed out to me that the shingles would almost certainly have been made (as formerly in Europe) by radial splitting from cylindrical sections of tree-trunk, and not by sawing or adzing. The reddish hardwood *iroko* (*Chlorophora excelsa*), so much used in Benin material culture, would seem the most suitable wood for the purpose, but Osuma remembered the shingles as having a whitish colour in at least one case.—W. B. F.

¹⁰ The very considerable number of cut iron nails, about two inches long, recovered from this area might have been used for

this purpose. Only a proportion of these monotonous finds was retained.

¹¹ Two body sections of snakes of the scaly type (see note 3) are in fact known, one in the Hamburg Museum für Völkerkunde und Vorgeschichte, the other in the Abbey Art Centre Museum, London; the former is illustrated by von Luschan, *op. cit.*, fig. 508. They are not tubular, but semicircular in section, about 18 inches long and 1/8-inch thick. If, as some accounts state, the bronze pythons were as much as 40 feet in length, and since more than a dozen snake heads are now known, then the total number of body sections must have been of the order of 300 or more; if so, we may conjecture that the great majority of them were gathered up, after the dismantling of the towers, for use as convenient raw material by the bronze-founders—though those used by the pagers as 'duck-boards' may yet come to light in further excavations.

I have seen a photograph of part of a large court in the palace in which the bronzes and other antiquities were gathered together by the Expedition in 1897. The steeply pitched roof appears to be covered with flat (not corrugated) metal sheets such as those known to have been imported into Benin by Cyril Punch in or about 1892, and down the roof (not on a turret) runs what appears to be a metal python, generally similar to those under discussion in this paper, though possibly of smaller size and simpler design, and therefore perhaps made of sheet brass. This photograph undoubtedly shows the 'palaver house' described on pp. 171-6 of Ling Roth's book. Incidentally, the two-inch nails found by Professor Goodwin (see note 10) might have been more suitable for the attachment of this European metal sheeting ('Muntz metal') than of split wooden shingles.—W. B. F.

¹² Plaques illustrating this and other kinds of fish are to be found in the major books on Benin Art (von Luschan, Read and Dalton, Pitt-Rivers, etc.). It is uncertain how far the considerable variations in the treatment of the tails and other features are due to the idiosyncrasies of the artists or to specific differences in the fish represented.—W. B. F.

¹³ All the material described above has been presented to the Benin Museum. All other material has gone to the Nigerian Museum, Lagos, for study.

A Note on 'Live Blood' as Food among the Tibetans. By Robert B. Ekvall, University of Washington

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The use of blood, collected or saved in the butchering of animals, as food is practised in many societies throughout the world. Its most frequent use as blood pudding or sausage is known in Europe and in many parts of Asia; and its use as an additive in stews or with meat has an almost equally wide distribution. Indeed its employment as food is chiefly limited by Judaic or Islamic dietary prohibitions. Otherwise it would seem to be a matter of course, in some form or other, wherever animals are slaughtered for food. Even among Moslems who reject its use as food, the blood from animals whose throats have been freshly cut, or *khalid*, will at times be ingested as medicine.¹

The use of blood drawn from live animals on the other hand has a much more limited distribution. It has been reported chiefly from the cattle-breeding tribes of Africa (Sierksma, 1962, 70). Previously reported from Tibet (Ekvall, 1961), from hearsay, as an emergency measure practised by the Goloks to secure food when other food supplies were depleted or nearing depletion, and by Kingdon-Ward (1937, pp. 223f.) in a casual fashion, the circumstances of which suggested that the veterinary practice of bleeding was linked with the use of 'live blood' as food; information now available from Tibetans² makes clear that in Tibet the drawing of 'live blood' for food is not an emergency action arising from famine or near-famine conditions, but is a systematized and even routine procedure for the procurement

of a highly valued food which is quite different from blood pudding and sausage or blood additives to increase the bulk or food content of stews and porridges.

The drawing of *KHrag gSon Por* (blood living) to serve as *Za KHrag* (food blood) is only carried on throughout the late spring and summer which is also the time when meat supplies are low: limited indeed almost entirely to the new-born calves of the half-yak half-common-cow hybrid cows which customarily are killed at birth because they are inferior and interfere with the milking. Other animals are seldom or sparingly butchered at this time because the nomads are averse to slaughtering animals which have not reached the optimum of fattness.

Ideally only yak oxen are so tapped for blood. Stud bulls are not touched and only occasionally the hybrid oxen or any cows are chosen to be blood-donors. The animals selected are those which are the thinnest and in poorest condition. It is claimed that the blood of those which are fat or in good condition is not 'tasty' or 'good.'

The process is a simple one. The animal is hobbled tightly and thrown to the ground. A tourniquet is put on the fore limb just above the ankle; a rope is tied tightly—barely avoiding strangulation—around the neck; and the flesh of the leg and shoulder is kneaded strongly towards the neck until the blood vessels stand out. Into one of them an incision is made with a leatherworker's awl which has an arrow-shaped point, or with the flaring point of a doctor's lancet.

The blood is said to spurt initially diminishing later to a steady flow. As much as four quarts will be collected from a single animal. The wound is then plastered with a mixture of butter and salt to stop the bleeding and if necessary it is seared with a branding iron. It is said that when the animal is released and gets up it frequently staggers from weakness like a drunken man; but if no mistake in puncturing the blood vessel or miscalculation, leading to death, in regard to the quantity of blood, has been made, it quickly gains strength and condition, putting on flesh faster than before.

The blood thus collected is distributed to a depth of about three fingers in shallow pans or cooking pots and is heated slowly over a fire after which it is put aside for about a quarter of an hour to coagulate. As partly solidified jelly it is then cut into cubes, seasoned with salt and mixed with butter and cheese, and eaten with great relish. All agree that it is most delicious but no medicinal value is claimed for it. It is merely a very great gastronomic treat. Unlike blood collected from butchering, 'live blood' cannot be kept for more than a day and is prepared only in the manner thus described. It is never added to meat in the making of stews and sausages.

There appear to be no taboos or sacerdotal associations connected with procuring the blood or eating it. No prayers are required when it is being drawn such as are often said when an animal is being slaughtered. The sin of eating it is less than the sin of eating meat, for only theft, not the cutting-off of life, is involved. It may be eaten by anyone, men or women, monks or lamas alike.

No reason for the practice is admitted other than to supply a superior meat-type food at a season when meat is scarce. The selection of animals which are in poor condition would seem to suggest that the practice originally developed from, or had some connexion with, the practice of bleeding livestock as a therapeutic measure. This however is categorically denied. *Nad KHrag* (sickness blood) and *Za KHrag* (food blood) are said to be two different and entirely unrelated things. It is admitted, nevertheless, that when blood is drawn from any animal, certain bad humours which might cause sickness are drawn out and the animal benefits accordingly. Such benefit is peripheral however

to the benefit sought by those who seek and eat with relish a special and much valued food.

It also is of some interest that the drawing of the blood and its preparation as food is divided into that which is man's work and that which is woman's work. Women have nothing to do with the blood-tapping operation. Any woman who did have a part would be stigmatized as a 'she bear' or female beast of prey. But after the blood has been collected its preparation as food is done only by the women, never by the men.

Many of the details of this practice and in particular the ideas about the benefit to the animal itself are much like what has been reported of the cattle-raising Nuer in Africa (Evans-Pritchard, 1940, pp. 27f.).

Notes

¹ Personally observed when big-game-hunting with Moslems in West China.

² Four Tibetans, whose residence for research purposes at the University of Washington has been made possible by a grant from the Rockefeller Foundation, have furnished the basic data for this paper. In a series of seminar-type exchanges they have discussed in great detail the practice of drawing blood for food. Two of them, Dachen Rinpoche and his brother Thrinlay Rinpoche, come from the western part of Central Tibet and report that the practice is very common in the province of Tsang, but little known around Lhasa. The other two, Dezhung Rinpoche and his niece, who is the wife of Dachen Rinpoche, came from the province of Kham in eastern Tibet. According to them it is extensively practised among the nomads and *Sa Ma aBrog* ('neither soil nor wilderness'), or so-called half-nomads, of eastern Tibet.

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Weavers and Butchers: A Note on the Otavalo Indians of Ecuador. By David A. Preston, Ph.D., Department of Geography, University of Leeds. With three text figures

176 Indians of the Ecuadorian Sierra are predominantly rural dwellers. Despite an ever-increasing movement from rural areas towards the towns, the urban areas remain the domain of the mestizo and white while, except in the northernmost and southernmost provinces of Carchi and Imbabura, where mestizos have long since replaced Indians as the rural peasantry, the countryside is inhabited by a predominantly Indian population. The picture of Indian life which was so movingly described in Jorge Icaza's novel *Huasipungo* is one of either servitude at the hands of large-scale landowners or subsistence cultivators at a very low level of living. Of all the highland Indian groups in Ecuador only three have any distinctive character of their own: the Saraguros, Salasacas and Otavalos. Members of these groups are frequently landowners and although the Salasacas do not have a commercially oriented economy, members of the Saraguro and Otavalo groups are prosperous and engage in varying degrees of commercial activity.

The Otavalo Indians are found throughout the province of Imbabura in northern Ecuador, and their commercial centre is the town of Otavalo. Although very great differences in level of living exist among communities of Otavalo Indians, several communities, in particular Peguche, Agato and Quisquinchir, located near Otavalo, have achieved a degree of economic success which is unparalleled among Ecuadorian Indians, and indeed probably among Andean Indians in general. The area

occupied by the Otavalos is a basin whose floor lies at about 2,100 metres (7,000 feet) between the eastern and the western Cordillera. The centre of the basin is occupied by a tall, conical, extinct volcano, Mount Imbabura, rising above the basin to a height of 4,600 metres (15,000 feet).



FIG. 1. MAP OF NORTHERN ECUADOR

MA, Mariano Acosta. M, Mira. B, Bolivar. MO, Monte Olivo.
C, Chota. P, Pimampiro.

The majority of the Otavalo Indians live in dispersed agricultural holdings, each family living in a house on the land that they own. The desire for ownership of land is a dominant psychological trait of most Andean Indians and not least of the Otavalos. In the lower agricultural areas several types of beans, maize, squash, potatoes and various garden vegetables are grown. Higher up barley and wheat replace maize, and higher still native quinoa is planted. Whatever the additional activities of Otavalo families, they will always obtain the majority of their food from their land. Cultivation is carried on by both men and women and the help of members of the extended family is frequently sought for major construction projects and occasionally at harvest time.

Since pre-Inca times the Otavalo Indians have made their own clothes, using a backstrap loom. Today ponchos, blankets, skirts and belts of cotton are all woven by the Indians themselves. While some families spin their wool by hand and have a backstrap loom for making clothes for the family, other families have both backstrap and frame looms, spin their wool on a wheel and make a wider variety of woollen goods for sale, as well as some heavy cottons. In the early part of the present century an Indian weaver was given a piece of British tweed cloth to imitate and the copy was executed with such skill that local market for pseudo-tweeds was soon created and many of the most commercially minded of the Indian weavers set about exploiting it. The

money gained from this commercial activity is invested most often in land and buildings which give the Indian a greater degree of security and which increase his prestige within the community. The families that have had most success with weaving thus become more closely attached to the land as their prosperity increases, and large two-storey farm houses, and even occasional attractively decorated stores in the countryside near to Otavalo bear witness to this increased affluence and to the continuing agricultural base of their activities.



FIG. 2. AN OTAVALO INDIAN WOMAN SERVING COOKED FOOD IN PIMAMPIRO MARKET



FIG. 3. PART OF THE WOOL SECTION OF THE SATURDAY MARKET, OTAVALO

Collier and Buitrón's remarkable pictorial record of Otavalo Indian life, *The Awakening Valley* (University of Chicago Press, 1949), mentions that in the middle nineteen-forties some Indians were travelling throughout the country and even further afield as merchants. The Indians are away from home often between the autumn, when the harvest has been completed and the first crops sown, and June when the first harvests begin. This activity has become more widespread. Individuals buy the produce of a number of looms and sell their accumulated goods in the Saturday morning market in Otavalo. Other Indians buy large quantities of textiles from Indian weaver families and travel throughout the country selling them in local markets and going from house to house in the small villages that have no market. The Otavalo Indian is known throughout the country as an itinerant salesman of woollen goods. In recent years this trade has grown and the textile industry of the Otavalo region has expanded to include several small factories which use Indian

labour to produce a wide variety of woollen textiles of high quality. It may be significant that the better-class Indians now prefer to wear a factory-made poncho that is blue reversible to grey or fawn rather than one made by hand.

The area travelled regularly by Otavalo Indian merchants has expanded greatly in the last decade. Some men from the most prosperous communities travel regularly throughout South America peddling textiles. Though they may start out with a big load of Otavalo-produced woollens they often travel first of all to Guayaquil to buy a load of cotton goods that add a note of variety and colour to their wares. The capital cities of most South American countries are visited by Otavalo Indian merchants in their travels and from Caracas to Santiago de Chile and to Rio de Janeiro the blue poncho and white cotton trousers of the Otavalo are to be seen. The Otavalos are not the only Ecuadorian Indian group whose members travel within the country, but long-distance organized travel such as is undertaken by some is unprecedented. The propensity of the Otavalos to travel as itinerant merchants is well known to those familiar with the Ecuadorian Andes, but a tendency that has become notable in the last two decades, to migrate from their native lands and to settle elsewhere and above all to specialize in one trade—*butchering*—has gone unremarked.

In all the main Ecuadorian population centres, most especially in Quito, there are found Indians from many parts of the Sierra. After a stay in the city few retain their native costume, and none save the Otavalos engage in any specific trade. The majority of the Indian men work as porters, labourers, or gardeners, while women and young girls work as servants. Many of the Indians work in the city only for a short time before returning to their native village to buy land, build a house, or otherwise improve their status in the community. This pattern of temporary migration is common to many areas of Andean America. However, besides those Indians who are general labourers or servants is a group of Otavalos whose members specialize in *butchering* and whose migration is permanent. From field observations made during nine months of 1961, Otavalo Indians live in all the towns along the Pan-American Highway to the north of Quito. It seems customary for the butchers' wives to sell cooked food as a sideline, and at every regular bus and lorry halt on the highway in northern Ecuador travellers will see Otavalo women with bowls or bags of *fritadas*, fried meats and parched maize, for sale to passing travellers. Otavalo butchers can be seen in the markets of Cayambe, Ibarra, Mira, Bolívar, San Gabriel and Tulcán.

During field work in the Chota valley region (the Río Chota becomes the Río Mira in its lower reaches), it was discovered that the *butchering* activities of the Otavalos are not confined to towns along the Pan-American Highway and that in virtually all those settlements in the Chota valley region with more than 300 inhabitants there are families, originally from Otavalo Canton, engaged in *butchering*. In Pimampiro, the largest town of Chota region, there are between eight and 12 families of Otavalos, while probably about 20 families live permanently in the Chota valley region.

The movement of Indians from their home villages seems to have started in the nineteen-thirties, for none of the families about whom enquiries were made had left their homes more than 30 years ago. The reason for this movement away from their homeland to live out of choice in non-Indian communities, and frequently in such a different physical environment as the warm, semi-arid Chota valley bottom, remains obscure. At some time a head of family or an elder son may have left home to travel through the neighbouring regions, earning money by *butchering*, and then decided to settle in one community and eventually been highly successful. Certainly some families, particularly one in

Mira, have reached an unusually high level of living and are among the most affluent members of their community. It is most likely that the success of one or two families in this occupation encouraged others to set out and try their fortune in a like manner.

Not all the Otavalo butchers engage in the same type of trade. Some are solely itinerant, travelling throughout isolated regions buying sheep or pigs in some communities and slaughtering them in others, depending on the local supply of livestock and the demand for meat. All but the most remote communities receive an occasional visit from one of the Otavalo butchers. While travelling, these itinerant butchers may stay the night with another Indian butcher family, renting a room and pasture or feed for the animals as necessary, and they return regularly to their families in the Otavalo area.

The butcher families that have settled and established themselves in other communities still engage in a certain amount of itinerant trade. While they have a permanent home where they raise a family and where the wife will frequently supplement the family income by selling cooked foods at the local market, if there is one, or by the roadside to passing vehicles, the husband will regularly leave home to buy animals and this is often extended to include journeys to outlying communities not served by a resident butcher. The longest-established butcher families have broadened the economic base of their activities and in a number of cases have engaged in pig-breeding. A family in Mira had accumulated enough capital to buy land and was engaged in growing the local speciality crops of maize and peas, rearing pigs and weaving as well as *butchering*. They had been able to achieve their diversification through the success of their original *butchering* enterprise and seem to have progressively increased their prosperity ever since.

The Otavalo butchers in the Chota valley are a prosperous and dynamic group. None are poor, all maintain houses of at least average appearance and most of their children attend school. They all seem well assimilated by their communities and are seldom thought of as being any different from the mestizo or Negro inhabitants even though they have without exception retained their long Indian hair and distinctive style of dress. They are universally accepted into the communities in which they have chosen to live and are in many cases highly respected. That they have migrated from their home area to alien communities and have specialized, with conspicuous success, in one occupation is probably due as much to their drive and energy as it is to the demand for the services that they offer.

A Stone Carving from Angolom, Uganda. By Dr. Merrick Posnansky, British Institute of History and Archaeology in East Africa. With a text figure

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In 1958 in an erosion gully at Angolom, Marusi county of Lango District, a stone carving was found by a Tsetse Control Officer, Mr. B. C. Abbott. The site (1° 43' N, 32° 20' E), some 105 miles north of the capital Kampala and immediately to the north of Lake Kyoga, provides no indication of the age of the specimen. The deposits of the area are alluvial with occasional gravels and are of very recent formation and even now in wet years large areas round Lake Kyoga turn into swamps. The streams, many of which are nameless, have little geological history. The erosion gully from which the head came forms part of such a recent stream course.

The head is made from a soft banded silt stone. It owes its survival to being found in alluvial deposits, though the lack of discoloration would suggest no great antiquity. On being brought back to Kampala a split developed which has now fortunately been repaired. The head¹ is some 10½ inches high, 8 inches long and

6½ inches broad. The modelling is straightforward and its simplicity is striking. The front face has the appearance of a mediaeval armour visor and is formed by the convergence of two flat plane

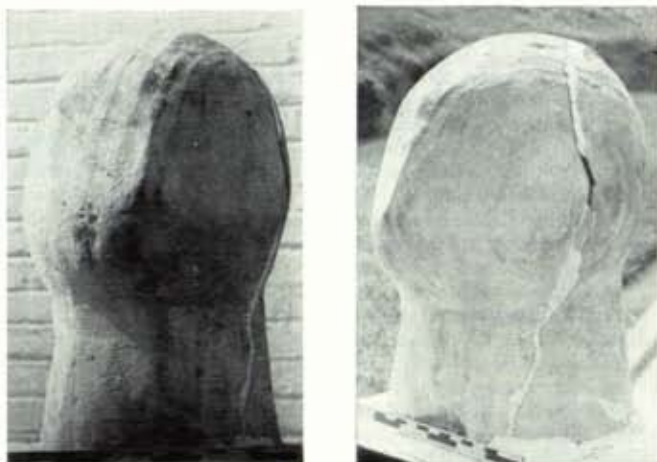


FIG. 1

with the apex forming the snout. The carving of the face is simple and from slightly above has a heart shape that is common also on certain African wood-carving (especially in a zone stretching from

the Gaboon to the north end of Lake Tanganyika).² The neck is massive and thickens out at the base in the front and back though not at the sides. The finish is smooth, and this would not have been difficult to achieve in such a soft stone.

The local Langi have no tradition of naturalistic art and no parallels occur elsewhere in East Africa, where naturalism is virtually non-existent in traditional art. Even the rock paintings of Uganda³ consist solely of schematic designs. In 1930 another enigmatic naturalistic figure was found at Luzira six miles east of Kampala.⁴ In this case the figure was an elaborate terra-cotta and there are certainly no links between it and the Angolom head. Angolom is in a fairly sparsely populated area and the present inhabitants have been there for not more than ten generations according to the traditions, and probably for far less. The north of Uganda is unexplored archaeologically and is hoped that with the intensification of research facilitated by the foundation of the British Institute of History and Archaeology in East Africa new finds may eventually place both the Angolom and Luzira heads in a truer perspective.

Notes

¹ The head is now in the Uganda Museum; collection number A60188.

² Personal information from Mr. William Fagg, who suggested a note on the stone carving.

³ M. Posnansky, 'Rock Paintings on Lolui Island,' *Uganda J.*, Vol. XXV (1961), pp. 105-11.

⁴ *MAN*, 1933, 29.

CORRESPONDENCE

'The Sarawak Museum Journal.' Cf. *MAN*, 1963, 48, 117

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SIR,—A recent letter in your columns, by a sometime member of my staff, gives a rather misleading impression of this Museum's publications and methods. In particular, it can be read to imply that we have produced seven post-war issues of the *Sarawak Museum Journal*. In fact, we are currently distributing post-war issue number 20.

Rather than enter into tedious repudiation (on 39 counts!) may I through your courtesy offer a complimentary copy of the current issue of our localized *Journal* to interested readers of *MAN* who do not already receive it (more than 70 already do so on an exchange or subscription basis)? This issue, with 310 pages and 30 plates, reflects typical Sarawak work of the past decade. There are sections on history, prehistory, folklore, ethnology and also biology (the last 30 pages), all fully documented and substantiated with facts. Contributors include Drs. G. H. R. von Koenigswald and D. A. Hooijer from Holland; Drs. J. Maceda and J. R. Francisco from the Philippines; Drs. A. B. Griswold and Wayne King from the U.S.A.; Lord Medway and Dr. G. A. Watson from Malaya; Dr. Y. L. Lee from Singapore—all writing on Borneo themes. And the usual number of local Sarawak authors, including Land and Sea Dayaks, a Kenyah, a Kelabit and the Roman Catholic Bishop (who writes on folksong).

The following issue, available shortly, will include a similarly wide range of contributors and some important new folklore material, notably by R. Nyandoh, a Land Dayak of the Museum staff now working under Dr. W. R. Geddes at the University of Sydney. His contributions—like most that we publish on folklore—are the result of his own upbringing in the living context of Borneo.

Incidentally, the cost of our *Journal* is \$ (Straits) 3.00 (7s. 6d.),

for which we undertake nowadays to produce at least 300 pages of original copy per year.

Sarawak Museum, Kuching

TOM HARRISON

Cortical Grooves on the Tibia. Cf. *MAN*, 1963, 137; 1962, 287

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SIR,—Dr. Wells refers in his note to references to tibial grooves made by several workers including Dr. Møller-Christensen and myself.

My attention was first drawn to these grooves by Dr. Møller-Christensen during his visit to this Laboratory in 1962. Subsequently to his visit, we have noted, as a matter of routine examination, the presence or absence of these grooves on all tibiae received here from current archaeological excavations. The majority of these bones date from Saxon times, and there are others from Bronze Age and Romano-British times.

It would appear from the prevalence of these grooves on this material, and the general lack of concomitant pathological signs in other parts of the skeletons, that the non-pathological causation of these sulci is indeed as manifest as Dr. Wells suggests.

I feel, however, that it would be incautious to exclude completely from consideration any possibility of grooving caused by natural agencies such as root action, particularly in skeletal material recovered from shallow inhumations, in view of the inconclusive degree of grooving that is often noticeable, the variation in the position of the grooves on the tibial shaft and the fact that such grooving, or grooving strongly resembling it, may occasionally be found, anomalously, in other parts of the skeleton as well. This is not to suggest, of course, that such *post mortem* occurrences would be a valid explanation of more than a very small minority of cases.

D. R. HUGHES

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REVIEWS

GENERAL

A History of Domesticated Animals. By F. E. Zeuner. London (Hutchinson), 1963. Pp. 508. Price £4 4s.

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In view of the tremendous importance that domesticated animals have had for man's economy, it seems extraordinary that their history has been so neglected. Professor Zeuner's book, which took him 13 years to write, is the first of its kind in the English language. Beginning with the dog and ending with the honey bee, it surveys the archaeological and palaeontological evidence for domestication and is as comprehensive and fully documented as we have come to expect of the author. Yet the text is easy to read and packed with fascinating information, while the many illustrations are altogether delightful.

Initially, domestication seems to have been an accident rather than a deliberate procedure. The first animals to be encouraged came as scavengers, attracted to the refuse of hunters' camps, and the dog was certainly man's oldest friend (the Natufian 'dog' is accepted as domesticated by the author, in spite of Degerbol's claim that it was a small, wild wolf). Reindeer, sheep and goats may all have been kept in semi-captivity in pre-agricultural times, but we can expect to find little evidence of this phase of nomadic husbandry. The domestication of the crop-robbers—cattle, pigs, buffaloes and elephants—came as a by-product of agriculture; and the cat was welcomed as a destroyer of the vermin which attacked man's food stores. Transport animals like the horse and camel were tamed by secondary nomads, while the river valley civilizations used the onager and ass. To a large extent, the animals kept in particular places at certain times depended on ecological factors. Pigs and goats were particularly useful to farmers in destroying undergrowth and these animals could be followed up by sheep, which can graze only in areas cleared of forest.

Morphologically, the earliest domesticated animals were so close to their wild ancestors that palaeontologists have great difficulty in telling them apart. Only after they were kept in strict captivity and prevented from interbreeding with wild forms did distinctive characters emerge. Generally the body size and horns became smaller, teeth were reduced, and the face became shorter. All this Professor Zeuner explains in principle, clearly enough to be understood by anyone with an elementary knowledge of zoology (and this, in an age of scientific jargon, is very welcome). But it would have been even more valuable if some technical appendices had been included for the benefit of palaeontologists and osteologists, which need not detract from the flow of the main part of the text. Comparative statistics of sizes of bones and teeth of wild and domesticated species would be useful. So too would diagrams of the cross-sections of horns of wild and presumed domesticated goats from pre-pottery Jericho. It would also be interesting to know the exact proportions of immature and adult animals in cultural contexts which have been used as evidence of domestication. Reed's claim that sheep were domesticated as early as 8,900 B.C. at Zawi Chemi Shandidar, based on the preponderance of yearlings, was presumably published too late to be included; but other, if less dramatic, examples could have been quoted. One wonders how hard the publishers pressed the author to be popular rather than tough.

In general, it would have been interesting to have more on methods of capturing, training and handling, particularly in the case of elephants. It is wrong, incidentally, to say that 'in Assam two koonkies approach a three-quarters-grown elephant and noose it' (p. 283); it is the phandi (man) on the back of the koonki (tame elephant) who does the noosing. Such skilled operations are an important aspect of domestication, whereas many of the historical and mythological incidents described are not.

Students of domestication wanting to delve deeper may like to know of a booklet just published by the Chicago Natural History Museum: *An Annotated Bibliography on the Origin and Descent of Domestic Animals*, by S. Angress and C. A. Reed, which covers the literature up to 1955 and is a valuable adjunct to Professor Zeuner's lengthy but unannotated bibliography. He has obviously put a tremendous amount of research into his book, which is likely to

remain unrivalled in its field for many years to come. Both he and the publishers are to be congratulated on a most attractive production.

SONIA COLE

Bone, Tooth and Horn Tools of Paleolithic Man. By James W. Kitching. Manchester (U.P.), 1963. Pp. xiv, 55, 5 text figs., 43 half-tone plates. Price £1 1s.

181

This book is the first detailed analytical description of the extensive osteodontokeratic discoveries made in the Pin Hole Cave (Mousterian and Upper Palaeolithic), Creswell Crags, Derbyshire, during the course of excavations conducted by that distinguished amateur archaeologist the late A. L. Armstrong in 1931, 1933 and 1939.

Mr. Armstrong visited South Africa in 1958 and, struck by points of resemblance between the Pin Hole Cave material and the osteodontokeratic finds at Makapansgat and Kalkbank, had hoped to undertake an interpretative study. His untimely death at Johannesburg in the same year, however, precluded his participation in this work which was undertaken by Mr. Kitching of the Bernard Price Institute of Palaeontology, Witwatersrand University, with the assistance of the Wilkie Foundation.

Mr. Kitching's exhaustive survey involved the inspection of over 14,000 specimens of animal remains, and this, together with his statistical analysis of some 11,594 of the specimens, revealed many indications of purposeful human selection and transport into the cave. Outstanding amongst the artifacts, perhaps, were a 'dagger' made from a vertebral bone of a mammoth, a 'sword' made from the scapula of a rhinoceros, and implements and utensils such as clubs, mortars, and 'tankards' fashioned from rhinoceros bones. These and many similar artifacts are admirably illustrated in the numerous half-tone plates that follow the text. The statistical treatment of the data (which is confined to calculations of proportions and percentages of types of bones and teeth found) is amplified by tabular illustration.

The stratification in the cave is illustrated and discussed, and the hypothesis of sequential warm and glacial events originally postulated by Armstrong was tested by the faunal analysis. Mr. Kitching's findings do not confirm the earlier suggestions of such climatic alternations.

A very full list of contents enables the reader to disregard the absence of an index, and a comprehensive bibliography is included. A biographical note relating to the late A. L. Armstrong is contributed by Mr. Miles C. Burkitt.

D. R. HUGHES

Symposia of the Society for the Study of Human Biology, Volume V: Dental Anthropology. Edited by

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D. R. Brothwell. Oxford (Pergamon), 1963. Pp. 288. Price £3 10s.

Since 1957 the Society for the Study of Human Biology has been holding regular symposia on various aspects of human biology, and this volume is the result of the fifth symposium which dealt with dental anthropology.

The work comprises 15 papers, most of which were read at the meeting, the others being additional in order to cover the subject as far as possible. Each deals with particular problems and is written by one or more eminent specialists in that field. It would therefore be invidious to comment on only a few papers while omitting the others. Suffice it to say that the subject matter includes various aspects of dental morphology in primates, tooth-sequence polymorphism, the radiographic study of fossil man, deciduous dentition in certain hybrids, quantitative analyses in dental studies, American Indian dentition, congenital absence of teeth in human populations, dentition in the assessment of individual age, variations in the frequency of certain types of teeth, microscopic and biochemical variations and the dental pathology of early human populations.

This volume should prove useful not only to those engaged in dental studies but also to primatologists, geneticists and those interested in human biology. Dr. Brothwell is to be congratulated on having brought together such a wide range of papers on this

important subject and edited the present volume. It is to be hoped that the Society for the Study of Human Biology will continue these successful symposia of which the fifth was a further indication of the vigour of this young Society.

The only criticism that one has to offer is that the price of the volume will unfortunately deter many from buying it. It may, however, induce some to join the Society. F. P. LISOWSKI

Digging up Bones. By D. R. Brothwell. London (Brit. Mus. (Nat. Hist.)), 1963. Pp. 194, 17 plates. Price 19s. 6d.

183

This is a comprehensive handbook about the 'excavation, treatment and study of human skeletal remains' and should be on the shelf and among the field equipment of every archaeological excavator. He is, after all, very often the first discoverer of ancient human remains and bears the responsibility for their discovery and preservation in as complete a state as possible. The book further affords invaluable practical guidance as to what may be done with the finds, later, in the laboratory, and how to extract from them information of value as to the nature, ways of life and death, health, nutrition and disease of populations of the past.

The trained archaeologist ought to know already most of the contents of Part I, on the fieldwork. By the middle of Part II, the detailed description of the remains, many will be already beyond their experience, but should not be out of their depths. Part III, measurement and morphological analysis, introduces more specialized techniques, but should enable any interested and intelligent worker to record the essential facts and note any anomalies.

Parts IV and V, forming most of the last third of the book, are, perhaps, the most unusual and valuable, dealing with the evidences of injury and disease, details about which are less accessible to most of us and are certainly nowhere collected and as clearly and succinctly set forth as here. No excavator will need to study bone pathology more closely than this, but, unless he is first aware that his material displays abnormalities, it is unlikely that it will ever reach the hands of a specialist competent to describe and study it. Dr. Brothwell's own valuable work in this field is well known.

The book is well produced, liberally illustrated with clear line drawings in the text, half-tone plates and a full bibliography. It is remarkable value at the price and great credit is due to all concerned. I. W. CORNWALL

L'hominisation du crâne. By A. Delattre and R. Fenart. Paris (Centre Nat. de la Rech. Scient.), 1960. Pp. 418, 179 text figs. Price 40 N.F.

184

As the title concisely indicates, this work is concerned with the variety of cranial changes and trends which have ultimately given rise to the skull form seen in *Homo sapiens*. Although a broadly comparative (mammalian) study, it is naturally concerned in particular with the hominoid skull. There are in all six parts to the book, each containing a number of chapters. Each part has a summary in English, but, alas, translation is often poor and one is best advised to make direct recourse to the French.

The authors discuss not only changes to the skull vault, 'occipital rotation,' sphenoidal angulation and so on, but also changes in the facial region. Their detailed studies lead them to conclude, for example, that there is no true 'foetalization' process to be recognized in hominoid evolution; similarly that prognathism is a too broadly defined term which should be considered both in terms of endo-facial and exo-facial factors. Some points are clearly debatable.

Illustrations are often complex in make-up and it is thus of considerable value to the book that such artistic work is generally of a very high standard. The well balanced bibliography of 348 entries is a valuable addition. DON BROTHWELL

The Human Skeleton in Forensic Medicine. By Wilton Marion Krogman. Springfield, Ill. (Thomas) (Oxford agents: Blackwell), 1962. Pp. 337, xxvi. Price £5 12s.

185

In this book W. M. Krogman sets out the techniques employed in one of the fields he has made peculiarly his own during the last 30 years—skeletal identification. Not only are they set out, but some appraisal is given of the value of one set of criteria as

compared to another in the light of his own long experience, and throughout there is due attention to the problems of variability and reliability. Identification of age covers four chapters in which are discussed the appearance and union of ossification centres, suture closure and morphological variations. Sex, stature and race identification receive a chapter each. The use of radiography in skeletal identification provides the final chapter. An intriguing chapter in many ways is that in which the possibility of identification of appearance of an individual from the skull is discussed.

In Krogman's own words this book 'is a meaty, questioning, and evaluating exposition of our present state of knowledge,' and as a work of reference as well as an introduction to skeletal variation it will be thoroughly useful. Among its shortcomings are the intentional omission of adequate reference to dentition and dental characters, so important in age and race identification, which it is to be hoped will be rectified in a companion volume; and the absence of any discussion of how to deal with fragmentary cremation debris of the type that is so frequent in archaeological work in Britain. D. F. ROBERTS

Races of Man. By Sonia Cole. London (Brit. Mus. (Nat. Hist.)), 1963. Pp. 131, 13 plates, 34 text figures, including 7 maps. Price 11s. 6d.

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Mrs. Cole undertook to write this handbook to complement the display in the British Museum (Natural History) relating to the Races of Man.

It is, of course, no easy task to compress the subject into a short book of this kind, and obviously many aspects cannot be dealt with in the kind of detail that one would expect to find in a textbook of physical anthropology. Nevertheless, a bold attempt to make a comprehensive survey has been made, and the omissions are such as would, in the main, only alarm the specialist.

The book begins by defining the way in which the term 'race' is to be used, and by surveying the foundations and methods of racial classification. 'Distance statistics' are mentioned, and classifications such as that of W. C. Boyd, based upon blood-group gene frequencies, receive attention without, however, any caution being expressed regarding the possibilities of adaptation, although this point does receive mention later. There is a useful chapter on Genetics and Evolution, with due regard paid to the influence of climate upon the evolution of mankind. Blood groups and their distribution are adequately described, but although the usefulness of the abnormal haemoglobins and the haptoglobins is noted, there is no mention of recent promising developments such as the discovery of high BAIB excretion rates in certain Mongoliforms, or of glucose-6-phosphate dehydrogenase deficiency. There is no mention, either, of the utility of dermatoglyphics in the study of human variation. Recent work, too, has greatly extended our knowledge of the distribution of the thalassaemia gene beyond the geographical confines indicated on p. 40.

The survey of the racial origins of man is concise and inclusive, but some readers may take exception to points such as the stress laid upon the 'Negroid' affinities of the Grimaldi remains, or on the supposed affinities of the 'Upper Cave' specimens from Choukoutien, or to references to the 'pygmy people' of the Malayan Mesolithic (Hoabinhian).

Detailed comment on the part of the book dealing with the various groups of mankind would be inappropriate here, but at least one reader interested in South-East Asia is surprised to read of the 'probably Australoid' affinities of the Senoi of Malaya, a group (although admittedly a rather heterogeneous one) that on serological and other genetical and morphological grounds has clear Mongoliform (probably proto-Malaysian) connexions. The retention for purposes of ethnic description of the terms 'Indonesian' and 'Malay'—both of which, today, have far better-known political, national and linguistic connotations—is to be regretted, in view of the confusion that such usage may engender.

Although this book steers through controversial waters, it is undoubtedly a useful compilation, well illustrated and clearly laid out. It will serve as an excellent companion to the Museum's display. There is a bibliography of references (extending up to 1960), and a convenient index. D. R. HUGHES

Witchcraft: European and African. By Geoffrey Parrinder. London (Faber), 1963. Pp. 215. Price £1 5s.

187

In this book, a revised and enlarged edition of a Penguin reviewed in MAN in January, 1959, Dr. Parrinder challenges Dr. Murray's theory that there was, in the fifteenth to eighteenth centuries, a witch cult of pagan origin with a regular organization and meetings of covens. His case is, briefly, that there is little mention of witchcraft before the fifteenth century; that it is incredible that the church would have waited till then to take steps to combat a rival organization and that the 'witches' were never accused of paganism.

The only evidence against the 'witches' is that of their confessions, and these were nearly all extorted under torture or threats and made in answer to leading questions. The confessions were the same because the leading questions were the same, and these were asked by men who believed that old women could raise storms and fly by night.

Dr. Murray, he says, 'begins with the assumption that the Devil or god of the witches was a real pagan person, despite his very Christian names,' and accepts confessions, however obtained, which give any support to her assumption.

He says that 'it is hard to think that the whole extensive system of belief in witches' meetings was pure delusion—until one hears modern African witches confessing freely and with detail the most impossible things.' That it was a delusion was strongly argued in 1584 by Reginald Scot, whom Dr. Murray dismisses with scorn.

RAGLAN

The Genesis of Religion. By Margaret Murray. London (Routledge & Kegan Paul), 1963. Pp. 88, index. Price 12s. 6d.

188

Dr. Murray has never lacked the courage to tackle obscure problems and champion unusual theories. In the introduction to her latest book she says that 'all students of ancient religion are well aware that the belief in a female deity long precedes that of a male deity.' Later this is toned down to 'strong evidence that the worship of the goddess preceded the worship of the god in many ancient religions' (p. 61). However modified, this is Dr. Murray's case. Women first raised food plants, domesticated animals, needed quiet during pregnancy, and invented goddesses. This goddess would not appeal to men (*pace* Jung), or at least not until the father's part in conception was realized. Men would require 'a leader, an invincible warrior.' Why this male religious conception should develop later than that of the mother goddess is not answered. Finally men took over, and ousted the priestesses. 'At the present day, though the great deities of India are all male, the little local deities of the villages are female.' Miss Murray should have visited the temples of the Great Goddess in Calcutta and elsewhere. Much of the book is an attempt at tracing mental and religious progress from animal, to child, to primitive and to woman, with a curious appendix on the cult of the head, and interesting but not always apposite notes. Much of the material in the chapters on animals and children seems irrelevant to the subject, and the whole book is too slight and debatable a treatment of a very difficult theme to be significant.

E. G. PARRINDER

Educational Strategy for Developing Societies: A Study of Educational and Social Factors in Relation to Economic Growth. By Adam Curle. London (Tavistock Publ.), 1963. Pp. xi, 180. Price £1 5s.

189

The argument of this book is that the worst obstacle to development in the tropical countries is the misuse of human resources, and that the prime cause of this is the maintenance of social systems which deny opportunity to merit. There is no time now for that gradual adjustment to the introduction of machine technology that we used to think desirable; the population explosion makes crash programmes urgent. The 'new class' that western education has created is not large enough to meet the demands made upon it, and because it is so small it is becoming a narrow oligarchy. The limited resources available for education are misdirected; primary education is expanded for the sake of egalitarian ideals, universities are built for the sake of national prestige, but the secondary education that would produce technicians and scientifically minded farmers is neglected.

Examples from different parts of Pakistan, where Dr. Curle

advised the government, illustrate different reasons for economic backwardness. The Chitralis are governed by a 'drone caste' who tax their subjects to the point of starvation. The Pathans will endure what they admit to be great economic hardship rather than accept any limitation on their prized independence. The Brahui are condemned to a life of pastoral nomadism by the lack of water supplies. But the Chakmas, who were happy in their traditional way in their remote mountains, had to be moved when a dam flooded their country—and in desperation they *did* turn to new agricultural methods.

Dr. Curle rejects out of hand the idea that authoritarian rule is necessary to achieve rapid economic development; only an egalitarian society, he insists, can do this. He regards community development as one of the best ways of stimulating people to look for solutions to their own problems. His very readable book should be invaluable to planners in all the new nations. LUCY MAIR

Handwörterbuch der Sage: Part 2, Alb-Altentötung. Edited by W.-E. Peuckert. Göttingen (Vandenhoeck & Ruprecht), 1962. Cols. 201-456. Price DM 24

190

In this very accomplished dictionary some subjects are listed in unexpected places. The miraculous turning of water into wine, for instance, appears under the heading *Alle Wasser Wein*. Without Lady Drower's explanation of the symbolic significance, the ritual use of water and wine, and the ritual methods of preparing wine, this miracle cannot be understood (see E. S. Drower, *Water into Wine*, 1958).

The article on the *Alpenjäger* contains a reference to the lord of animals but no indication that a special article will be devoted to this subject which has attracted so much attention in post-war research.

In column 411 doubt is expressed whether Pomponius Mela's record of the nine maidens living on the Isle of Sena should be mentioned in the article on old spinners. Various students of Celtic religion (J. de Vries as recently as 1961) regard these maidens as priestesses. Their assumption is proved by the sacred character which the Celts attributed to the number nine.

Of outstanding importance are the articles on Alexander the Great, All Souls (pp. 354ff.) and the *Alben* (pp. 334ff.), the Germanic counterpart of the fairies.

ELLEN ETTLINGER

Society and the Law. By F. James Davis, Henry H. Foster, Jr., C. Ray Jeffery and E. Eugene Davis. Glenoe, N.Y. (Free Press), 1962. Pp. 488. Price \$6.95

191

This is an ambitious book of substantial value. It is the work of two professors of law (of Hamline University and the Arizona State University), a professor of sociology (of the University of Pittsburgh) and a practising attorney (of Des Moines, Iowa), and seeks to bridge the gap between the disciplines of sociology and law. That the sociologist and, it may be added, the anthropologist must include the nature, structure and functioning of law and legal relations and institutions in their analyses of society or societies goes without saying, but they have (until recent years, at least) been shy of doing so, and in the authors' view, and my own, have hardly begun to qualify themselves for the purpose. The discipline of the lawyer, on the other hand, is still commonly too narrow to enable him to envisage law in society.

To these ends the book reviews the thinking of the twentieth century on sociology and jurisprudence and covers such fields as the sociological study of law, and especially law as a type of social control, law in operation, law and social change, the legal profession and legal education. In spite of its merits it leaves the reader with the sense that the chief difficulty is posed by the differing terminologies of these disciplines—not diminished when the reader is English and not American, for the large legal sections are American and the treatment of English legal institutions is sketchy. The work has taken well over a decade to write and is in consequence a little out of date in parts—for example, the writers have not heard of the English system of public legal aid under the Legal Aid and Advice Act, 1949, and their information as to the law of the Ancient Near East is derived from Wigmore's *Panorama of the World's Legal Systems* (1936). Nevertheless the book is well worth study, and not least in the sections concerning the development of American law and the American legal profession. A. S. DIAMOND

STRUCTURE OF PERSONAL NAMES ON TORY ISLAND*

By J. R. Fox, London School of Economics and Political Science

192 In *The Aran Islands*¹ Synge makes the following observations on the system of personal names then in use (1898–1902):

When a child begins to wander about the island, the neighbours speak of it by its Christian name, followed by the Christian name of its father. If this is not enough to identify it, the father's epithet—whether it is a nickname or the name of his own father—is added.

Sometimes when the father's name does not lend itself, the mother's Christian name is adopted as epithet for the children.

Occasionally the surname is employed in its Irish form, but I have not heard them using the 'Mac' prefix when speaking Irish among themselves; perhaps the idea of a surname which it gives is too modern for them, perhaps they do use it at times that I have not noticed.

Sometimes a man is named from the colour of his hair. There is thus a Seaghan Ruadh (Red John), and his children are 'Mourteen Seaghan Ruadh,' etc.

The schoolmaster tells me that when he reads out the roll in the morning the children repeat the local name all together in a whisper after each official name and then the child answers. If he calls, for instance, 'Patrick O'Flaherty,' the children murmur, 'Patch Seaghan Dearg' or some such name, and the boy answers.

If an islander's name alone is enough to distinguish him it is used by itself, and I know one man who is spoken of as Eamonn. There may be other Edmunds on the island, but if so they have probably good nicknames or epithets of their own.

While on Tory Island (Oileán Thoraighe), Co. Donegal, in 1962, I collected the names of all living adults and found the system to be basically that reported by Synge for the Aran Islands, with enough distinctiveness to be worth a separate analysis.²

Kinship terms are rarely used among the islanders except between young children and their parents and parents' siblings. Cousinship is indicated by saying of a person something like 'his mother and my father were the children of two brothers' (*Bhí a mháthair agus m'athair clann na beirte dearbhráthar*), or 'we are children of brother and sister' (*Támuil clann dearbhráthar agus deirbhshéathar*). But in a small community where the genealogical links between persons are common knowledge, such descriptive explanations are rarely called for. Personal names are used instead and in themselves help to indicate a person's position in the kinship structure by showing his line of descent for up to four generations.

A person will in fact have three sets of names: a Gaelic 'ceremonial' set; an English 'practical' set; and a Gaelic-English 'personal' set. A man's full Gaelic name will consist of his baptismal name followed perhaps by his 'epithet' such as Óg (young—usually means youngest of several brothers), Bán (fair), Mór (big), Beag (small—wee), followed by his surname. Such a combination might yield, for example, 'Pádraig Óg Mac Ruadhraigh.' A woman, strictly speaking, retains her family name on marriage and adds the descriptive phrase 'wife of' (literally 'woman of')

and the names of her husband, e.g. 'Máire Ní Dhubhghain bean Shéamuis Mhic Ruadhraigh'—literally, 'Mary, daughter of Doohan, wife of James the son of Rory.' A number of circumstances will determine whether or not her husband's name will 'stick' as a surname or whether she will go on being known by her maiden name. These names in their full forms are only used on ceremonial occasions such as dances—when a man or woman is called upon to sing or step-dance—, or for prayers in church during a serious illness, or for calling the roll in school, or for putting on a tombstone.

The practical names are the rough English equivalents of the Gaelic names, used in dealing with English-speakers generally and particularly for use when working in England and Scotland. The Government is usually dealt with in English for several reasons, mainly because although the islanders all speak Gaelic as their native tongue, the language they read and write is English—a situation brought about by the pattern of migrant labouring which forced literacy on them when working in Britain. Also they find 'Dublin' or 'civil service' Irish difficult to follow. Most islanders, then, have an 'English' name. Our examples would be 'Paddy Rogers' and 'Mary Doohan' to the outside world. Sometimes these names stick and are used amongst the islanders rather like nicknames. Usually the English version is a rough phonetic equivalent of the Gaelic—Ó Duibhir becomes Diver, Ó Dubhghain becomes Doogan or Duggan, Mac Fhlaitheartaigh becomes Mac-Clafferty, etc. Sometimes this is abandoned and an English name taken for its 'likeness' to the Gaelic as with Mac-Ruadhraigh and Rogers—Roger being the English name most like 'Rory.' The name Fíoruisce is sometimes hopefully rendered Whorriskey, but mostly this is not even tried and the simple 'Waters' is substituted. Those going to England for work are particularly inclined to pick an 'English' name, i.e. one the foreman will recognize.

The third set of names, used for reference, consists of two or more Christian names, either Gaelic or English or both, 'strung' together in the manner described by Synge for Aran. Some people have as many as five or six names and 'epithets' strung together in this fashion. These names are the names of lineal ancestors either on the mother's or the father's side of the family. A person will take as many names as is necessary to distinguish him from all other persons, the surname system being inadequate for this task. (Four surnames cover 80 per cent. of the population.) He does not, however, pick these names arbitrarily but inherits the whole string. He can stop at any point in the string. Thus if a man was called 'Jimmy-Dhonnchadha-Mhuire-Mhicí,' his father must have been 'Donnchadh-Mhuire-Mhicí,' his paternal grandmother 'Máire-Mhicí' or maybe 'Máire-Mhicí-Tom.'³ Thus if our man wanted to add to his names, he would have to add 'Tom.' Usually one or at most two names are enough to distinguish a person, in

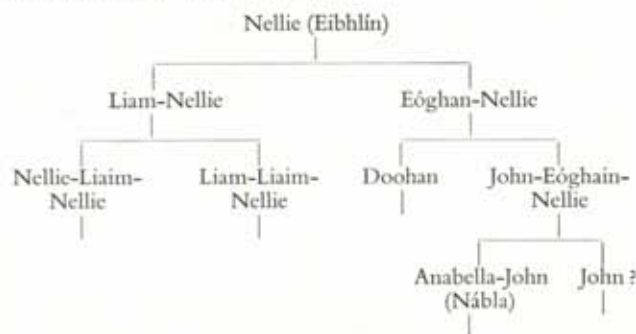
* With two tables

addition to his own. As Synge observes, if a man's name is unique in some way he may be known by it alone, although on Tory he will usually have a 'latent' string of names which he never actually uses but which could be used if his Christian name were to crop up again. If any of the ancestors in the 'string' had epithets (using this to mean descriptive terms), these are included. But there is a tendency to use only the epithet of the last person in the string. Sometimes, if an ancestor was firmly known by his surname (if, say, he was an immigrant and the first of his name on the island) then this is added also.⁴ Below are some examples of these names:

Eóghan-John-Dooley-Mhalainne	Dooley was a man from Malin in Co. Donegal.
Mary-John-Dooley-Mhalainne	Eóghan's sister.
Kate-Dooley-Mhalainne	His paternal aunt.
Jimmy-Mhuire-Bhillí	Jimmy-Mary-Willy (Billy)
Peggy-Phaidi-Shéamuis-Dhomhnaill	Peggy-Paddy-Jimmy-Donal
Pádraig-Hughdie-Dhuibhir	Patrick Hugh Diver
Paddy-Johnnie-Fhlaitbheartaigh	Paddy John (Mac)-Clafferty ⁵

An alternative type of name—and a man may have two or three alternative types—consists of the addition of the Christian name of a parent to the surname. Thus two paternal first cousins might be respectively 'Jimmy Diver Nancy' and 'Jimmy Diver Madge.'

The segmentary process in the cognatic descent groups on the island affects this naming mechanism. This is illustrated in the following diagram:



This is an actual descent group tracing its ancestry to a widow, Nellie Doohan. The first four generations of the group are shown here, there being eight altogether. Nellie's descendants, 'Clann Nellie,' are divided into the Liam-Nellies and the Eóghan-Nellies. Clann Liaim-Nellie are subdivided into the Nellie-Liaim-Nellies and the Liam-Liaim-Nellies. The descendants of Eóghan-Nellie are segmented into the John-Eóghain-Nellies and another group known as the Doohans. There have only been sons in this latter group, and they have tended to be known by the 'John Doohan Nancy' type of name. The four or five generations below those shown on the diagram are not clearly segmented as yet. Amongst these, the name continuity is not so strong, but they all regard themselves as 'Liam-Nellies' or 'John-Eóghain-Nellies' or Doohans' according to the level of segmentation relevant to their various collective activities.⁶ The degree to which the

name continuity of such a group can be maintained, converging on the founder's name as in our example, is some measure of the continuing solidarity of the group. This tends to weaken after about six generations and the disintegration of the group is reflected in the native commentary—*Tá na h-ainmneacha caillte*, 'the names is lost.' The attempt to keep the name continuity often conflicts with the desire to distinguish person from person, hence the existence of alternative name types.

The following formula shows the ideal structure of the Tory name using the following symbols: C = Christian name, S = surname, E = epithet, Fa = father's Christian name, Mo = mother's Christian name. A symbol in the lower case indicates that the item can be omitted from the progression of names.

	Generation		
	0	+ 1	+ 2
Patrilineal		$\left\{ \begin{array}{l} \text{Fa} \\ \text{cs} \\ \text{s} \end{array} \right\} + \left\{ \begin{array}{l} \text{FaFa} \\ \text{cs} \\ \text{s} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{FaFa} \\ \text{cs} \\ \text{s} \end{array} \right\}$
	Ce	$+ \left\{ \begin{array}{l} \text{fa} \\ \text{S} \\ \text{mo} \end{array} \right\}$	—
Matrilateral		$\left\{ \begin{array}{l} \text{Mo} \\ \text{cs} \\ \text{s} \end{array} \right\} + \left\{ \begin{array}{l} \text{MoFa} \\ \text{cs} \\ \text{s} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{MoFa} \\ \text{cs} \\ \text{s} \end{array} \right\}$
			$\left\{ \begin{array}{l} \text{MoMo} \\ \text{cs} \\ \text{s} \end{array} \right\}$

The columns represent the alternative possibilities, the rows the matrilineal and patrilineal 'progression' of names. The formula can be expanded according to the same rules.

To see how this basic choice between matrilineal and patrilineal 'progressions' worked out in practice I tabulated instances of each type of name progression in my collection, distinguishing by sex of nominee (m and f) but ignoring the optional epithets and surnames (Table 1). I collected these names separately from the two settlements on the island, East Town (*Baile Thoir*) and West Town (*Baile Thiar*), and they are so listed on the table. It is commonly believed that the East is more traditional than the West, but this does not show up in any differences in the naming systems.

What emerges from this table is the overwhelming preference for taking the father's name (and his father's) by both men and women, and the fact that for both sexes one possible combination does not occur—m/f+Mo+MoMo. I am told that this has occurred in the past, but infrequently. The fourth cluster of name types in the table is a group of residual types. The oddities here are the girl who took her father's brother's name and the rest which skip a generation and start with the grandparental names. These cases usually result from an uncle or grandparents bringing up children in the absence of parents. If these relatives are seen as *in loco parentis* then the pattern remains the same as for the majority.

TABLE I

Name type	West Town	East Town	Total
m + Fa	24	25	49
f + Fa	26	16	42
m + Mo	13	4	17
f + Mo	6	4	10
m + Fa+FaFa	15	5	20
f + Fa+FaFa	13	4	17
m + Mo+MoMo	0	0	0
f + Mo+MoMo	0	0	0
m + Fa+FaMo	0	3	3
f + Fa+FaMo	2	1	3
m + Mo+MoFa	0	3	3
f + Mo+MoFa	0	1	1
m + MoMo	2	1	3
m + MoFa	3	1	4
f + MoFa	1	0	1
f + Fa+FaFa+FaFaFa	3	0	3
f + FaFa+FaFaFa	0	1	1
f + FaBro	0	1	1
m + MoMo+MoMoFa+MoMoFaMo	3	0	3
f + MoMo+MoMoFa+MoMoFaMo	1	0	1
	112	70	182

Table II summarizes the 'laterality preference' as it affects men and women respectively.

TABLE II

	Patrilateral	Matrilateral	Total
m	72 (70.6 per cent.)	30 (29.4 per cent.)	102
f	67 (83.75 per cent.)	13 (16.25 per cent.)	80
Total	139 (76.4 per cent.)	43 (23.6 per cent.)	182

The figures in parenthesis are percentages of the row totals.

The overall preference is, as we have seen, patrilateral, but there is an interesting minority preference amongst males for matrilateral names. Practically a third of the men and less than a sixth of the women have matrilateral names.⁷ There are several explanations for this trend amongst males. It may stem from the large number of widows with sons, or from the name continuity of the descent system. In a number of cases it follows from the fact that a man is given his father's Christian name as his own and hence takes his mother's name to distinguish him, although this is not all that common.

Such a highly personalized naming system only works within the particularistic boundaries of a small community.

The world at large is not interested in the particular antecedents of a man and the islanders recognize this in their use of surnames with the outside world. The old 'family' or clan names placed a man in his wider kinship group in the days when this was important—it no longer matters today. Within the community the naming system described above distinguishes a man from other men and places him in his immediate kin group. It helps to establish his descent. Research in small communities in Western societies may reveal similar systems serving similar ends but based on different diacritical criteria.⁸

Notes

¹ J. M. Synge, *Four Plays and The Aran Islands*, Oxford, 1962, pp. 263f.

² Brief ethnographical details of Tory Island can be found in J. R. Fox, 'The Vanishing Gael,' *New Society*, Vol. I, No. 2, 1962.

³ The second and subsequent names, when in Gaelic, are in the genitive. Some English names are Gaelicized and given a genitive form. I make no claims for the correctness of the spelling of the names given here (Irish spelling is pretty fluid), except that they are the forms recognized by literate islanders. I could not have made any headway with the Tory naming system and genealogies without the patient help of Máire Nic Fhlaitbheartaigh bean Aodha Uí Dhubhghain, Pádraig Óg Mac Ruadhraigh, and Aodh Ó Dubhghain.

⁴ See Synge's comment on the use of the surname and the 'Mac' prefix. In the 'ceremonial' names on Tory both Mac and Ó are used, but when a surname is included in the 'personal' set, these prefixes are not usually used.

⁵ This could be Paddy-John Uí Fhlaitbheartaigh—roughly Paddy John O'Flaherty. The pronunciation would be the same.

⁶ A fuller analysis of the structure and functions of these descent groups is in preparation. They seem to be mainly concerned with landholding—as a consequence of the equal division of land amongst all a man's (or woman's) heirs, and the system of keeping land in trust for migrants. Their other functions lie mainly in the sphere of mutual support amongst members in times of crisis.

⁷ This distribution could only occur by chance in one sample out of 20: $\chi^2_{(1)} = 4.30$; $p = < .05$.

⁸ The Welsh system of stringing ancestral names together with 'ap' is obviously similar to the Tory method, but the Welsh, I believe, used only male names. Mr. Andrew Dunsire tells me that in some Scottish coastal villages a man will be known by the boat he owns, his children inheriting this epithet. In some working-class communities which I know in England a system similar to that on Tory operates. A man may be known as 'Mary's Tom' and his son as 'Mary's Tom's Johnnie,' etc. Synge notes the use of occupations as marks of distinction in Wales and comments on the lack of occupational differentiation on the Aran Islands which makes this method impossible. In some rural communities a man is known by the name of his farm. W. M. Williams in *The Sociology of an English Village* (Routledge, 1956) gives examples of this. See also his fascinating discussion of Naming and Family Continuity, pp. 79–82 and 229f. The contrast with the Tory system is marked, however, in that one can, in Gosforth, move from 'side' to 'side' in choice of names—both surnames and Christian names being used.

OBITUARY

K. P. Chattopadhyay: 1898–1963

193 The news from Calcutta of the death of Professor K. P. Chattopadhyay at the untimely age of 65, just when he was planning a visit to this country early next year, will be received with great regret.

Professor Chattopadhyay started his career as a physicist, and having taken a first class in physics in Calcutta came to this

country to work under J. J. Thompson, but turned from physics to anthropology, in which his teacher was W. H. R. Rivers, and his son tells me that Rivers left to him in his will the ms. of his *Social Organization*. After returning to India Chattopadhyay lectured on anthropology in the University of Calcutta for a time, but when the Congress captured the Calcutta Corporation he was appointed, through the influence of C. R. Das and Subhas

Chandra Bose, to be its chief education officer. Towards the end of the thirties he returned to the University as Professor, and Head of the Department of Anthropology, a post which he held till his retirement last March, after which he went on working for the Indian government's Council on Scientific and Industrial Research.

Apart from his academic work he was always active in promoting the welfare of his fellow men. As a student in England he had worked among seamen in the East End of London; in India the free primary education system in Calcutta was largely his work; as Treasurer of the People's Relief Committee, famine relief and rehabilitation work in the rural areas of Bengal owed much to him, and during the communal riots of 1946 he organized a 'Peace Corps' to restore order.

He was a Fellow of the National Institute of Sciences of India, an Honorary Fellow of the Sanskrit College and a member of

the École Française d'Extrême-Orient; he had been president of the Archaeological and Anthropological Section of the Indian Science Congress, of the All India Education Conference and of the anthropological section of the All India Sociological Association. He was a Vice-President of the International Congress of Anthropology, and a member of several governing bodies and a Trustee of the Vidyasagar Institute, being a descendant of Pandit Iswar Chandra Vidyasagar as well as of Raja Ram Mohan Roy, whose name is more familiar in this country.

He sat for a time as an independent member of the West Bengal State Legislature, and being a man with the courage of his convictions he suffered imprisonment more than once during the civil disobedience movement in the thirties.

His death is a serious loss to India and to anthropology.

J. H. HUTTON

SHORTER NOTES

A Terra-Cotta Head in the Ife Style from Ikirun, Western Nigeria. By P. A. Allison, Department of Antiquities, Nigeria. With five text figures

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During the early years of the century, the British Museum acquired a plaster cast of a terra-cotta head in the Ife style which was published by Sir Hercules Read in 1910 as a refutation of claims by Leo Frobenius to be the first discoverer of the art of Ife.¹ Frobenius's German Inner African Expedition of 1910-12 reported and acquired a number of heads and fragments of terra-cotta figures from Ife² and since that time many more examples of this naturalistic style of sculpture have come to light, either in hitherto unreported shrines or as a result of excavations such as those at Ita Yemoo in 1957 where fragments of at least seven figures of about two-thirds life size were discovered.³

So far all the examples of this particular style have been reported from the vicinity of Ife itself, but in October, 1961, I photographed the head illustrated in figs. 1 and 2 at the Yoruba town of Ikirun, some 30 miles north of Ife.

The total height of the head is 15 inches, of which 6½ inches comprise the elongated neck which is scored around with six incised lines; a small, pointed, bib-like process is indicated on the neck below the chin. The face is covered with parallel incised striations. The whole head is hollow with an aperture running through from the base of the neck to the top of the head, which is surrounded by a brimmed headdress. The aural apertures are pierced through to the hollow interior.

An elaborate tasselled ornament is suspended from the headgear by two cords, which converge to a point below the right ear where there are four circular bosses; below this the three-tiered ornament is moulded down the right side of the elongated neck. The small objects suspended from the ornament may represent bells. The incised rings round the neck may be intended to represent the creases to be seen round the neck of a healthy full-bodied person, which are much admired, as a sign of physical wellbeing, particularly in women, in West Africa today.

The facial striations, the aperture at the top of the head and the rings round the neck are all features appearing frequently in the Ife bronzes and terra-cottas but the elongated neck and the tasselled ornament are unusual.

The rear and left-hand side of the brimmed headdress are slightly damaged but the terra-cotta is otherwise in a good state of preservation and appears to have been modelled as a head and not to be a fragment broken from a whole figure. The whole is covered with a shiny, purplish patina, presumably the result of repeated anointing with blood and oil.

The head is sacred to the cult of Irunmale, which seems to be peculiar to the town of Ikirun, although there is a class of Yoruba earth spirits referred to generally as *Irunmale* or *Imonle*.⁴ The head is displayed on the Irunmale shrine only at the annual festival in December or at times when the town is in need of especial



FIG. 1. TERRA-COTTA HEAD AT IKIRUN

Photograph: P. A. Allison, 1961

protection from war, pestilence or other disasters; otherwise it is kept by the Olu Awo Onishegun, the priest of the cult, together with the other cult objects mentioned below.



FIG. 2. FURTHER VIEWS OF THE IKIRUN TERRA-COTTA

Photograph: J. Picton

These consist of six carved stone figures (which are shown in figs. 3-5) which are considered to be inferior in importance to the terra-cotta. They are carved in soft stone, probably steatite, and represent: a standing woman fifteen inches high; a kneeling woman fourteen inches high; a seated woman fourteen inches high with a child on her back and another in her arms (from which the head is broken off); two kneeling women each 7½ inches high and a plaque, fourteen inches by ten inches, carved with a crude male figure in low relief. All these objects are of relatively crude execution in a style similar to recent Yoruba wood-carving.



FIG. 3. FOUR STONE FIGURES AT IKIRUN

Photograph: P. A. Allison, 1961

The Olu Awo could not give me any information as to the origin of any of these objects. Historically, Ikirun is connected with Oyo and Ibadan rather than with Ife and, during the latter half of the nineteenth century, served as a war camp from which the Baloguns of Ibadan carried out raids eastwards into Ekiti and Ilesha and opposed the incursions of the Ilorins from the north.

A few years ago, a fragment of a terra-cotta head was reported

from Ire, about three miles north-east of Ikirun, which is considered to have stylistic affinities with the art of both Ife and Nok.⁵ This head also shows a pointed 'bib' below the chin similar to that noted on the Ikirun terra-cotta.



FIG. 4. TWO STONE FIGURES AT IKIRUN

One (right) also appears in fig. 3. Photograph: P. A. Allison, 1961



FIG. 5. STONE PLAQUE AT IKIRUN

Photograph: P. A. Allison, 1961

Notes

¹ Frank Willett, 'Ife and its Archaeology,' *J. Afr. Hist.*, Vol. I, No. 2 (1960). The original came to light a few years ago, and is now in a New York private collection (see E. Elisofon and W. B. Fagg, *The Sculpture of Africa*, 1958, fig. 4).

² Leo Frobenius, *The Voice of Africa*, London, 1913.

³ Willett, *op. cit.*

⁴ R. C. Abraham, *Dictionary of Modern Yoruba*, London, 1958, s. 11.

⁵ B. E. B. Fagg, 'The Nok Culture in Prehistory,' *J. Hist. Soc. Nigeria*, Vol. I, No. 4 (1959).

Some Kaguru Riddles. By Dr. T. O. Beidelman, Harvard University

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In previous articles published elsewhere¹ I present texts in Chikaguru, the language spoken by the Kaguru of Kilosa and Mpwapwa Districts of east central Tanganyika. These texts appear to be the only published examples of this language. In view of the comparatively small amount of material published on Bantu languages of Tanganyika and, in particular, on those of the matrilineal peoples of eastern Tanganyika, I hope to continue publication of further texts in the Kaguru language. These may be of some use to linguists and to those interested in the sociology of the Bantu of East Africa; they may also afford some pleasure and entertainment in their own right as examples of East African traditional literature.

The present texts illustrate a far different aspect of Kaguru literature from that of those previously published, even though all of these are merely termed *simo*, story, by the Kaguru. Most of the previous texts are tales or fables illustrating certain values held in Kaguru society. The present texts are riddles which teach no moral, but which are intended solely to amuse and to demonstrate the superior wit of the person setting the problems. Riddles may be posed by any Kaguru, but they tend to be especially popular among young people. The most common occasions for riddle-telling are the gatherings of adolescents at night when boys and girls often compete against one another in demonstrating the superior intelligence of their respective sexes.

In this article I have followed the same procedure which I used in presenting other Kaguru texts. I present the riddle first in English and then in Chikaguru with a literal English translation. I then do the same with the riddle's answer. I provide supplementary information in footnotes. Further sociological information on the Kaguru is published elsewhere.²

1. I am greeted by the dead while the living remain silent (*Nilamusigwa na wofile awomi wani nyamalila*, I am greeted by dead living are silent). A. Dried pigeon-peas (*Sinhanghe sinyalile*, pigeon-peas dried (*se*, not silent, rattling)).

2. I herd my cow by its tail (*Nina ng'ombe yangu nidimaga umukila*, I have cow my I herd by tail). A. Yams and potatoes (*Dilombo na mandolo*, yams and potatoes).

3. I have children all of one age (*Nina wanangu wamuligano*, I have my children are of one age). A. Black ants (or) *mkomba* trees³ (*Masalasa*, black ants; *makomba*, *mkomba* trees).

4. I have cut sugar cane with only the top and bottom parts sweet (*Nhema mugwa wangu kwisina wamulile kwisobwa*, I have cut sugar cane my at bottom sweet at top). A. The sun⁴ (*Dijuwa*, the sun).

5. Dig at the top! Dig at the bottom! (*Kulange nyagembe hasi nyagembe*, upward with hoe downward with hoe). A. The dituga vine⁵ (*Dituga*, the dituga vine).

6. I stood on the mountain and recognized by father's cow (*Nima kwitunda nhanga ing'ombe ya baba*, I stood on mountain I recognized the cow of father). A. Ashes in a refuse heap⁶ (*Difu*, waste ashes).

7. Steep until the coast (*Cha hata mhwani*, steep until coast). A. The way, the path (*Njila*, path).

8. I eat and am satisfied and then I play with grandmother (*Ndiya nguta seigile mama*, I eat satisfied play grandmother). A. A bed⁷ (*Disasi*, bed).

9. The mouse's child ate and slept on the trip (*Mwana mshelu kadiya kagana mui mulila*, child mouse ate slept on animal track or path). A. The tongue⁸ (*Dilimi*, tongue).

10. Chinguhi passed along the hill (*Chinguhi kakola muvitongo*,⁹ a personal name given to a short woman passed along the hill). A. A razor (*ulumo*, razor).

11. I cultivate a large garden but harvest little (*Nilima mugunda mukulu nigola muiganja*, I cultivate garden large I harvest not much). A. Hair (plural) (*Sinyweli*, hair).

12. I went to my garden and killed a Baraguyu with his skin

garment¹⁰ (*Nduta kwilolo*¹¹ *ng'homa muhumba*¹² *na makope gawe*, I went to river-valley garden I killed Baraguyu with skin garment his). A. A banana (*Ing'howe*, banana).

13. I eat husks everywhere I go (*Ndiaga mhumba hohose honikuluta*, I eat husks everywhere I go). A. Laughter¹³ (*Luseko*, laughter).

14. The mungo bird cried from night until dawn (*Mungo*¹⁴ *kalilila usiku kucha*, mungo bird cried night to dawn). A. A rooster (*Dijogolo*, rooster).

15. My grandmother's walking stick was washed away by the river (*Pando dya mama diluta no lwanda*, walking stick of grandmother went with river). A. Sweat (*Dikwe*,¹⁵ sweat).

16. The small bird fought for the mukwambe¹⁶ fruits, but it did not eat any (*Chidege chilewela mukwambe no mukwambe chisudiile*, small bird fought mukwambe fruits and mukwambe fruits it did not eat). A. A hoe (*Digembe*, hoe).

17. Grandmother died and left a stench behind her (*Mama kafa kandekela dibofu*, grandmother died left behind stench). A. Beer¹⁷ (*Ugimbi*, millet beer).

18. We are everywhere (*Chili huwe*, we are everywhere). A. The stars¹⁸ (*Sinyelezi*, stars).

19. My elder children sit on the ground while the younger ones sit on stools (*Nina wanangu awakulu wekala hasi awadodo wekala mumagoda*, I have my children elder they sit down younger ones they sit on stools). A. Calabash vine¹⁹ (or) A type of eggplant (*Amayungu*, calabash vines; *Singogwe*, eggplant vines).

20. No matter what is dropped into it, it never fills up (*Tubwi ng'hamema*, dropping into it it is not being filled up). A. A termite hill (*Isugulu*, termite hill).

21. You step on my belly (*Kandwata munda*, You step on me belly). A. The overhead granary within a house²⁰ (*Ikano*, granary).

22. A Baraguyu stood on one leg²¹ (*Imuhumba kema mugulu umwe*, Baraguyu stood leg one). A. A mushroom (*Uyoga*, mushroom).

23. A Baraguyu fell down throwing off his headdress²² (*Imuhumba kogwa kataga ingalo*, Baraguyu fell down throwing off headdress). A. A type of rat trap²³ (*Diliwa*, type of rat trap).

24. At the same time that it is laying eggs, it bears children (*Aku dikutaga, aku dikuwangula*, while it lays eggs while it bears offspring (or children)). A. The cucumber vine²⁴ (*Ditanga*, cucumber vine).

25. Which things are similar? (*Fana ng'hufane?* similar when (or which) similar). A. Honey and oil (or) milk and the juice of the euphorbia tree²⁵ (*uki na mafuta*, honey and oil; *mele na usulu*, milk and juice of the euphorbia tree).

26. I beat a drum and make Sagara tribesmen come (*Nitowa ng'oma ninanga wasagala*, I beat drum I make come Sagara people). A. Defecation or the latrine²⁶ (*Mutala*, Defecation (or fesses)).

27. The lion of Mkata Plain²⁷ is walking about on four legs (*Simba sa mukata sigendaga ine ine*, lion of Mkata Plain is walking about four legs). A. The legs of a bed²⁸ (*Matengu*, legs of a bed).

28. The pestle²⁹ keeps bouncing as it strikes the stone (*Dandala dandala mutwango wima mwiwe*, bouncing bouncing pestle standing on stone). A. The *mswaki* plants³⁰ (*Masheyu*, the *mswaki* plants).

29. Drop to the river valley! (*Buu kwilolo!* Drop to the river valley!). A. A type of rat-trap³¹ (*Diliwa*, a type of rat trap).

30. Who never shows his footsteps? (*Ng'honeka lwayo?* Never shows footprint). A. A fly (*Nghosi*, fly).

31. Make a headcloth for carrying a load! I make one and carry Makutwi rock³² on my head (*Singa ngata nani singa ngata chikenulile diwe Makutwi*, make headcloth for carrying a load and I make headcloth we lift stone Makutwi rock). A. The moon³³ (*Dimwesi*, the moon).

32. I told him to go ahead, but he refused (*Nimugamba longola, kalema*, I told him to go ahead, he refused). A. The back of the head (*Chigogosi*, the back of the head).

33. My father's elder brother beat me and left me crying; my father's younger brother beat me and then made me not cry (*Baba nkulu kanhowa kandeka nikulila Baba mudodo kanhowa kaninyamasa*, father elder beat me left I am crying father younger beat me made me not cry). A. The species of bees which do not produce honey and the species of bees which produce honey³⁴ (*dilondolo*, bee which does not produce honey; *njuki*, bee which produces honey).

34. I went to find the *mwengele* plant³⁵ and could not see it

(*Nigenda nihanga mwengele no mwengele siuwene*, I go I seek *mwengele* plant and *mwengele* plant I do not see). A. Faeces of a snake (*Mutala we dijoka*, faeces of snake).

35. In the forest there is a tall tree on which no bird ever perches (*Kumuhulo kwina ibiki itali disikugwa ndege*, In forest is tree tall it is not rested upon bird). A. A spear (*Mugoha*, spear).

36. It flows and flows; it remains and remains (*Kapilima kapilima kabandama kabandama*). A. The river and the sand in its bed (*Lwanda no disanga*, river and sand).

37. In the forest there is a large pot which says, 'Munyes!' (*Kumuhulo kwina injungu digambaga Munyes! Munyes!* In forest there is large pot it says Munyes Munyes (a woman's name). A. White ants (termites) ³⁶ (*Musuwa*, white ants).

38. I have a child which cries through the soft spot on the top of its head (*Nina mwanangu kilililaga kwidosi*, I have my child it cries soft spot on the top of an infant's head). A. A hubbly-bubbly pipe (*dipunde*, pipe).

39. My house is not open (*Nyumba yangu yachililija*, house my it is not open (its doors are shut)). A. An egg (*ditagi*, egg).

40. I have three children. If one gets tired, the other two cannot work (*Nina wanangu wadatu. Yumonga yanghasoka aweli nao wasina mulimo*, I have my children three. Other if tired two their they do not have work). A. The three hearthstones of a Kaguru house ³⁷ (*Mafiga*, hearth-stones).

41. The mouse's children are pattering on the ground (*Wana mbelu wasalalika*, Children mouse they make a pattering sound). A. Sinsim ³⁸ (*umheja*, sinsim).

42. Let us pass around the hut to kill the mouse (*Chisingulute chikome chipukumwikonde*, Let us pass around let us kill a type of mouse). A. A serving of ugali porridge ³⁹ (*Isima yo ugali*, serving of ugali porridge).

Notes

¹ T. O. Beidelman, 'Hyena and Rabbit: a Kaguru Representation of Matrilineal Relations,' *Africa*, Vol. XXXI (1961), pp. 61-74; 'Further Adventures of Hyena and Rabbit: The Folktale as a Sociological Model,' *Africa*, Vol. XXXIII (1963), pp. 54-69; 'Three Kaguru Tales,' *Afrika und Uebersee*, in press; 'Four Kaguru Tales,' *Tanganyika Notes and Records*, in press; 'The Blood Covenant and the Concept of Blood in Ukaguru,' *Africa*, forthcoming; 'A Kaguru Version of the Story of the Sons of Noah: An Example of the Inculcation of the Idea of Racial Superiority,' *Cahiers d'études africaines*, in press.

² *Ibid.* and T. O. Beidelman, 'Kaguru Justice and the Concept of Legal Fictions,' *Journal of African Law*, Vol. V (1961), pp. 5-20; 'Right and Left Hand among the Kaguru: A Note on Symbolic Classification,' *Africa*, Vol. XXXI (1961), pp. 250-7; 'Withcraft in Ukaguru,' in *Withcraft and Sorcery in East Africa*, edited by J. Middleton and E. Winter, London, 1963.

³ The offspring of black ants are thought to hatch all at one time. The *mkomba* tree (*mbambakofi*, Swahili; *Azelia quanzensis*) bears fruit all of which is said to mature at the same time.

⁴ The warmth of the morning and evening sun is pleasant, but the heat of the midday sun is not.

⁵ The *dituga* vine produces edible fruit and edible roots, but the stem and leaves have no use. I could not secure the scientific name for this plant.

⁶ If one stands on a mountain top, one can see white objects below quite distinctly, such as a white cow or the ashes from a dry season grassfire. In this riddle, the whiteness refers to the ash heaps of villages. In the past, when Kaguru had larger settlements than they have today, these ash heaps used to be quite conspicuous.

⁷ After a person eats, he is tired and lies down. The reference to grandmother indicates bed, *sc.* sexual intercourse. There is a sexual joking relationship between persons of alternate generations; one can sleep with and marry classificatory grandmothers not of one's own clan.

⁸ After one eats, one is silent, *sc.* sleeps.

⁹ This is probably an allusion to the fact that most Kaguru hills and mountain tops are wooded.

¹⁰ This riddle clearly expresses the great hostility between the

Bantu Kaguru cultivators and their neighbours, the Nilo-Hamitic Baraguyu pastoralists. For an account of the traditional hostility between Kaguru and Baraguyu, see T. O. Beidelman, 'Beer-Drinking and Cattle-Theft in Ukaguru: Intertribal Relations in a Tanganyika Chiefdom,' *Amer. Anthropol.*, Vol. LXIII (1961), pp. 534-549.

¹¹ One of the most frequent situations in which Baraguyu and Kaguru fight is when Baraguyu lead their herds to water in the river valleys where Kaguru have some of their best gardens which are often trampled by Baraguyu livestock.

¹² *Muhumba* is an insulting word used by Kaguru to refer to Baraguyu, see T. O. Beidelman, 'The Baraguyu,' *Tanganyika Notes and Records*, Vol. LV (1960), footnote on p. 246. Baraguyu warriors used to wear skin, sheath-like garments and the term *muhumba* is undoubtedly here a pun on *muhumba*, husk, which here refers to the peel of a banana, the subject of this riddle.

¹³ Laughter is something external, like a husk, and it is, like eating, performed by the mouth.

¹⁴ I could not obtain the scientific name for this type of night bird.

¹⁵ A person's sweat is washed away in the river water in which one bathes. The reference to grandmother is made because of the joking relationship with such a person (see riddle 8), here an impolite reference to the more unpleasant aspects of the human body.

¹⁶ I could not obtain the scientific name for this fruit-bearing tree.

¹⁷ After one drinks beer, it is gone, but the smell remains on one's breath. Again the reference to grandmother in an impolite and hostile tone involves the joking relationship (see riddles 8 and 15). A beer club is a place of jocular relations and sexual liaisons. Beer may only be made by women.

¹⁸ Perhaps this may also refer to quartz gravel (also called *nyelesi*) which is found everywhere in Kaguruland.

¹⁹ These vines creep along the ground. In their early stages, their fruits are held aloft but as they increase in size and weight, they lie on the ground.

²⁰ In order to take food out of such a granary, one must climb up into it.

²¹ A reference to the celebrated Nilotic stance which is characteristic of Baraguyu warriors.

²² This refers to the ostrich-plume headdress which was sometimes worn by a Baraguyu warrior in the past. As in riddle 12, the text expresses intertribal hostility.

²³ This type of rat trap consists of a stone propped up by a stick. When the stick is sprung, the stone falls down on the rat. Some Kaguru, especially children, still hunt wild rats to eat.

²⁴ Both flowers and fruits may be found at the same time on the same cucumber vine.

²⁵ Honey and oil are both yellowish, viscous and semi-opaque. Milk and euphorbia juice are both white, liquid and opaque.

²⁶ This obscene riddle refers to the noises of defecation. When one uses the latrine, flies and other insects come out. The Sagara are a matrilineal Bantu people inhabiting the area bordering Kaguruland on the south. As the riddle indicates, the Kaguru do not hold the Sagara in much respect.

²⁷ The Mkata Plain lies to the east of Kaguruland.

²⁸ I could not determine the reason Kaguru consider a bed similar to a lion.

²⁹ A wooden pestle used in pounding maize or millet.

³⁰ There are a number of plants which are called *mswaki* in Swahili, because they are used for toothbrushes. There are several allusions involved in this riddle. A toothbrush bounces on the teeth as a pestle bounces on a mortar. The teeth may be compared with stones. *Mswaki* plants tend to grow in very rocky areas.

³¹ See riddle 23.

³² *Makutwi* rock is a famous stone formation which is located near Idibo in northern Kaguruland. It is said to be shaped like *makutwi*, ears.

³³ The riddle tries to convey the idea of something of fantastic weight. Thus, one might as easily carry *Makutwi* rock as the moon. The riddle has different forms depending upon where it is told in Kaguruland. I collected the riddle in Idibo where the largest stone

formation is Makutwi rock. In other areas, different stone formations are mentioned.

³⁴ Both types of bees sting, but one type compensates for this by producing honey.

³⁵ This is a plant collected for use in various medicines. (Perhaps it is used as a laxative.) I could not find the scientific term for this plant, but it is said to have leaves resembling those of a yam and to be a tree-climbing vine.

³⁶ Termites live in a great hill which might be compared to a large pot; they are said to make a sound similar to the name 'Munyisi.'

³⁷ All three hearthstones are required to provide a proper resting place for a cooking pot.

³⁸ This refers to the sound of simsim grains being shaken from a stalk.

³⁹ House mice are killed in a hut by having persons stand inside the hut, along the sides of the circular hut's walls, and then driving the mice out from the walls and towards the hut centre. People sit around a serving of ugali porridge and take their portions from the edges, eating towards the centre of the serving.

'Negative Wishing' among the Slavs and Western Peoples.*

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By Pierre A. Radwanski, Professor of Anthropology and Slavonic Ethnology at the University of Montreal

In comparing the life of civilized and of primitive man we find that the chief differences are concerned with magic. Civilized man, living in a world in which most things can be rationally explained, has largely eliminated magical elements from his life. Magical beliefs and practices he in general regards as superstitions and, very often, is ashamed of them.

In spite of the extent of this elimination of the magical elements from life, there is one field of magic which has remained quite untouched, that of wishing. One can say without fear of exaggeration that this field has been entirely conserved by civilized man. Despite his rationalism, man believes, sometimes profoundly, in the force and power of wishing, that is, in the words of the wishes coming true. Wishes are never considered to be superstitions. They are sometimes even obligatory, for instance on New Year's Day and similar occasions. Everyday greetings such as 'Good morning,' 'Good evening' or 'Good night' are actually wishes. Civilized man, as well as primitive man, thus attaches importance to the magical value of words. Likewise, both fear the unknown. While nearly everyone likes good wishes, there are occasions on which some people dislike them. For example a racing driver or a pilot may dislike such wishes as 'Have a good trip.' Similarly, some hunters do not like to be wished 'Good hunting.' A. S. Rappoport¹ writes: 'The fisherman is firmly convinced that if someone speaks to him or even wishes him good luck, he is sure not to catch any fish. In Portessie fishermen even went so far as to beat the enquirer and to "draw blood," so as to turn the ill-luck.'

In order to find an explanation, we must first take into consideration the universal element which is rooted deeply in the tradition of all peoples, namely the belief that caution must be exercised in saying certain words, as the attention of evil spirits may be attracted. Above all, it is forbidden among some tribes to speak one's own name. Some members of primitive societies actually have two names, one for official use, the other (the real name) kept secret and known only to the immediate family. The purpose of this is protection against evil spirits, who are tricked through ignorance of the identity of the owner of the real name (J. G. Frazer,² G. L. Gomme,³ M. Mauss,⁴ A. Métraux⁵). Among other tribes one must also avoid speaking the names of

ancestors, as they might come back and take revenge. According to popular Slavic (especially Polish) beliefs, one has to keep secret until the day of baptism the forename chosen for a newborn baby so that bad spirits, ignorant of it, may be unable to harm him (J. St. Bystron⁶). In the linguistic field, the general problem of forbidden words is discussed by A. Meillet.⁷ In the purely Slavonic field we owe a very detailed piece of research to D. Zelenin.⁸

From a psychological standpoint, certain abstentions in speech sometimes stem not only from a fear of evil spirits, but also from simple caution; for it is better not to arouse the interest of some spirits or divinities—*Quicquid non movere*. Divinities and spirits are sometimes capricious: some of them do good, but they can act badly too. In view of their caprices, it is sometimes better to avoid their attention. For instance, wishing someone 'Good luck' may have the opposite effect, by arousing the attention of a divinity while momentarily in a bad mood. For this reason, the Polish mountain dwellers from Tatra, Górale, sometimes do not answer when asked about their children, as they do not like to arouse the attention of the spirits.

In the magic of modern peoples, especially among the Slavs, there are even some practices aimed at counteracting spirits or demons. For instance, among the Poles of any social class, when speaking about personal or family good health, one knocks on a wooden object (which according to the magical rules must be unpainted), or simply says 'to knock' (*odpukać*), in order to neutralize the dangerous forces. Again, in abstaining from saying certain words, one may be influenced by a fear of charms or spells which may be cast by other persons. The popular belief in charms is universal. We find it in abundance among the exotic peoples as well as among the Slavic, Latin, Teutonic and other civilized peoples. In popular belief, almost every negative event, and above all sickness, is associated with charms. Sometimes they are due to somebody's look, 'a bad look' (*'malloccio'* of the Italians, *'jettatore'* of the Spaniards, *'zazory'* of the Poles). Sometimes they result from someone's bad intentions; one fears bad wishes, believing that they can bring bad luck. They can result also from someone's evil powers provoking misfortune (J. Mellot⁹). At the same time, belief in charms suggests discretion in social life: keeping secret all that is of vital importance to the individual, such as his projects, plans and actions, so that no one will be able to cast charms on them.

Poles of all social classes in speaking about personal or family good health generally add the words '*Na psa urok*,' 'May the charm fall on the dog,' that is 'not on me.' This expression is so deeply rooted in the everyday language of the Poles that, ignoring its magical significance, one can consider it an inseparable element of the Polish language.

According to R. H. Robbins,¹⁰ 'Protection against the malicious charms and harmful amulets of witches could be secured by counter charms.' Among the Slavic peoples, especially the Poles, a red ribbon is sometimes attached to the neck of a newborn baby in order to protect it against charms. According to Bulgarian peasants, there are brilliantly coloured flowers which turn away a 'bad look.'¹¹ There are also magical practices which aim at neutralizing charms or the diseases caused by them (J. Manninen,¹² J. Zachariev¹³).

There is also a sociological element in the belief in charms. People generally have some idea of their neighbours' thoughts, and know very well that their expressed wishes are not always frank owing to jealousy or envy: thus one can wish a person good orally, at the same time wishing him evil mentally. This is cleverly expressed in a popular Polish anecdote: two Jewish people, after being angry at each other all year, made up on the Day of Atonement, in accordance with the principles of their

* Presented to the Annual Meeting of the Canadian Association of Slavists, 13 June, 1961

religion. One said to the other, 'I wish you whatever you are wishing me.' The second became angry and yelled, 'You are starting it again.' Thus, man usually does not have much confidence in the wishes of others.

The facts so far presented constitute an ethnological parallelism, being very easily explicable by the common psychological elements of human nature, manifesting themselves in popular traditions. Nevertheless there are elements in the field of wishes which suggest ethnical specificity. This seems to be linked with 'negative wishing.' One wishes a person aloud the opposite of what one really wishes him. Before an examination, Polish students usually wish each other: 'Break your neck!' or 'Break your jaw!' or 'Break your arms and legs!' (*Złam kark, złam pysk, złam ręce i nogi*). One also hears the same wishes on other occasions of vital importance. We find the same among the other Slavic groups like the Czechs ('Break your neck,' *'zlom váz'*). Among the Russians one finds in similar situations the expression, 'May you have neither feather nor down!' (*Ni puha, ni pera!*). According to Professor R. Pletnev¹⁴ this is a very archaic expression, applied originally only to hunting, and then extended to apply to all situations in life. Similar wishes can sometimes also be found in the Western countries as in Germany ('*Hals und Bein bruch!*', Break your neck and legs), or in England ('Break your neck!'). The psychological motive behind this kind of expression is to produce the opposite result, that is fulfilment of the true wishes of good luck. Their aim is to trick the 'evil spirits' which make everything turn out to the contrary.

All sorts of 'negative wishes,' found among the Western peoples, seem to be due only to Slavic influence, since it is in popular beliefs of the Slavic peoples that the element related to the tricking of divinities or spirits is most strongly represented. We do not find it to such a degree in Western popular beliefs. In Great Russia, peasants suffering from fever change their clothes and paint their faces black; guests at a wedding sometimes do the same thing. On New Year's Eve Russian girls, going to hear fortune-telling, make masks out of dough and put them on their faces to cheat the spirits (K. Moszyński¹⁵).

Many magic practices connected with the tricking of the spirits are concerned with the time of birth, since in Slavic popular beliefs demons are then most active. They can kill, devour, kidnap or exchange the child. An exchange is particularly feared. If the new-born baby is crippled or sick, this is said to be due to demons which stole the child and left their own child in its place. Often this is attributed especially to aquatic demons. In Bulgaria it is believed that the spirits visit the child on the third day after birth to determine its fate. Therefore, the period between birth and baptism is especially important, calling for several very intense magical efforts to neutralize the spirits. Such magical practices are thus found among all Slav groups, Eastern, Western and Southern.

Among the Eastern Slavs (K. Moszyński¹⁶) where previous children in a family have died, certain fictitious transactions are made, such as a pretence of selling the new-born baby to a relative, a friend or any passerby (this is supposed to be most effective). Sometimes in Great Russia the child is given to a beggar instead of alms; later, the child is taken back and the beggar is given ordinary alms. The peasant women of Western Ruthenia put the child's clothes on a rolling pin and place it beside the mother, and the child is transferred to another place. Among the Kashubes the confined woman wears men's clothing to trick the evil spirits. In Bulgaria the child in the same situation is transferred to a friend's home and a tadpole is placed in the child's clothing instead of the child. Another Bulgarian method of tricking demons is to give the children special forenames like 'Znajda,' 'Najden,' 'Najda,' which mean 'Found.' Sometime a child is left

near a road. The first person to pass (knowing this custom) takes the child to his home and gives him back to the parents later (D. Marinov¹⁷).

Among the Southern Slavs children are often given the forename 'Vuk' (Wolf) to protect them against witches, which would not be bold enough to attack a 'wolf.' In the Balkans (Bulgaria, Serbia, Montenegro, Herzegovina), according to F. Krauss,¹⁸ there is a custom that when a boy is born into a family, the oldest woman of the family runs in front of the house and shouts in order to neutralize the demons: 'News for all and health for the child. The she-wolf gave birth to the wolf!'

While the tricking of demons is found everywhere in the Slavic countries, comparative study shows that it is not exclusively Slavic. It is also found among some non-Slavic peoples of Asia (Caucasia, among the Yakuts) and Europe (Finland). Among the Yakuts (E. Piekarski and N. Popov,¹⁹) if a previous child in a family has died, one makes an agreement with friends to steal the new-born baby. Immediately after the birth, when the mother falls asleep, the grandmother gives the child to the friends and puts beside the mother a puppy or a small cat wrapped in rags. Sometimes the child stays away from home until he is seven years of age and sometimes the parents do not even know where he is.

We may conclude that 'negative wishes,' derived from customs of tricking divinities or demons, are a Slavic peculiarity, since we do not find them in that form in Asia (which is characterized rather by 'superlative wishes'). 'Opposite meanings' contained in some Asiatic expressions, may arise from the same psychological reason as 'negative wishes,' but they concern not so much the wishes as the state of possession. For this reason a Chinese millionaire may, in speaking about himself, say that he is a very poor man, not so much from modesty as from fear of evil spirits. As for the Finns, who share many beliefs with Slavic peoples, they do not seem to be the creators of 'negative wishes.' According to Stith Thomson and J. Balys,²⁰ the Finns have been most influenced in their beliefs and superstitions by other Europeans, and above all, according to J. Jakobson,²¹ by the Slavs.

The Slavs thus seem to have been the originators of 'negative wishing'; the Germans, as their nearest neighbours, may have been the intermediaries who introduced it to the Western world. This conclusion is confirmed by comparative analysis of ethnological traits such as the vampire concept (A. Taylor²²).

Notes

¹ A. S. Rappoport, *Superstitions of Sailors*, London, 1928, p. 256.

² J. G. Frazer, *The Golden Bough*, London, 1954.

³ G. L. Gomme, *The Handbook of Folklore*, London, 1890.

⁴ M. Mauss, *Manuel d'ethnographie*, Paris, 1947.

⁵ A. Métraux, *South American Indian Folklore*, in Funk & Wagnall's *Standard Dictionary of Folklore, Mythology and Legends*, New York, 1950, p. 1057.

⁶ J. St. Bystron, *Etnografia Polski*, Warszawa, 1947.

⁷ A. Meillet, *Quelques hypothèses sur les interdictions de vocabulaire dans les langues indo-européennes*, Chartres, 1906.

⁸ D. Zelenin, *Tabu Slov*, *Sbornik Muzeja Anthropol. i Etnogr.*, Vols. VIII, IX, 1929, 1930.

⁹ J. Mellet, *La superstition ersatz de foi*, Paris, 1959, p. 47.

¹⁰ R. H. Robbins, *Encyclopedia of Witchcraft and Demonology*, New York, 1959, p. 87.

¹¹ *Izvestija na Narodnija Etnografski Muzej w Sofija*, Vol. XI (1921).

¹² I. Manninen, *Die dämonische Krankheiten im finnischen Volksaberglauben*, 1922.

¹³ J. Zachariev, *Kjustendilso Krajce*, Sofija, 1918.

¹⁴ R. Pletnev, Oral information.

¹⁵ K. Moszyński, *Kultura Ludowa Slowian*, Krakow, 1934.

¹⁶ *Ibidem*.

¹⁷ D. Marinov, *Narodna vera i religiozni narodni običaji*, Sofija, 1914.

¹⁸ Fr. Krauss, *Volks Glaube u. religiöser Brauch der Südslaven*, 1900.

¹⁹ E. Piekariski and N. Popov, quoted in K. Moszyński, *Kultura Ludowa Słowian*, Krakow, 1934.

²⁰ Stith Thomson and J. Balys, *Finnish Folklore*, in Funk & Wagnall's *Standard Dictionary*, 1950, p. 387.

²¹ R. Jakobson, *Slavic Folklore*, in Funk & Wagnall's *Standard Dictionary*, 1950, p. 1019.

²² A. Taylor, *Germanic Folklore*, in Funk & Wagnall's *Standard Dictionary*, 1950, p. 445.

The Third Edinburgh Conference on Minoan and Mycenaean Writing, 13-14 June, 1963. Communicated by

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W. C. Brice, Manchester University

This meeting, arranged by the Department of Greek at the University of Edinburgh, surveyed a wider range of topics than its precursors. Now that the basic principles of Minoan writing are becoming clearer, notably in the recurrence of certain combinations of signs, sometimes written separately and sometimes in ligature, it seemed that a useful further step would be to study the significance of these features when they occur in other scripts. Dr. E. A. E. Reymond therefore presented a survey of the earliest Egyptian hieroglyphic inscriptions, from Abydos, Sakkara and Hierakonpolis. They contain a strong ideographic element, and often display a rigid formulaic arrangement, with repetition and inversion of signs, which is reminiscent of certain Minoan texts. Dr. J. Eric S. Thompson gave a lucid analysis of the nature of Mayan writing. Though there was of course no question of any historical link between the two cultures, Dr. Thompson's demonstration of the wide range of expression possible in a script which was basically ideographic, especially by the varied use of ligatured combinations or 'compounds,' threw much fresh light on the question of how the Minoan

scripts may have operated. The Mayan signary was perhaps four times as large as that of the Minoan linear scripts, but at the same time the range of topics which it was used to express may have been much wider.

There were also three papers on Minoan topics. Dr. Jane E. Henle gave reasons why she considered that no simple system of open syllabic signs, of the type proposed by Ventris, could be accepted in any decipherment of Linear B into Greek. She was inclined on archaeological grounds to accept the language of this script as Greek, but argued that a proportion of the signs at least must have expressed closed syllables. Professor A. J. Beattie listed a number of 'inflectional endings' in Linear B, of the type which Dr. Kober collected in her studies of the nature of this writing. He showed that the phenomenon now seems, through the discovery of further texts since Dr. Kober's work was done, to be much more complex than she supposed, and certainly not explicable in terms as simple as those chosen by Ventris. Certain texts of the Ta series involved an apparent use of elaborate prefixes and infixes as well as of suffixes, and in some cases at least an ideographic interpretation of individual signs might be preferable to a phonetic interpretation. Mr. W. C. Brice dealt with the 'Libation Formula,' well known on some six vessels inscribed in linear script, and on two hieroglyphic seals, and already subjected to fourteen different interpretations, including five as the names of goddesses. From a study of similar inscriptions and of artistic evidence, he concluded that this group of signs appears to be an ideographic formula rather than a word spelt phonetically; and if this were so, there was a strong presumption that the remainder of the linear inscriptions in which it occurred should be understood in a like fashion.

CORRESPONDENCE

Moslem Prayer Places. With a text figure

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SIR,—During April of last year, I was passing by road through the area north-west of Nok-Kondi in Baluchistan (c. 29° North, 62° East). The track is the one followed by most vehicles travelling between Pakistan and Iran, and has for a long time been used by the nomads on their journeys.



FIG. 1. MOSLEM PRAYER PLACE IN BALUCHISTAN

Photograph: J. H. Chaplin, 1962

The land lies about 1,000 metres above sea level, the surface is stony desert, with low dry hills as a background. There is no vegetation.

The purpose of this note is to record the presence along the roadway of prayer places, *musalla* (fig. 1). Their simple form is the basis

of all Islamic architecture; this is the fundamental unit that underlies the splendours of the Umayyid Mosque of Damascus, the Sultan Ahmed of Istanbul, the Shah of Isfahan. While other world religions evolve into complexity, and their basic activities require buildings of some size or people set apart, it has been the strength of Islam that the basic unit of the individual and his prayer place have been retained. It is perhaps worth considering that stone-surrounded spaces found in archaeological contexts may also indicate places set apart rather than residences.

London

J. H. CHAPLIN

The Determinants of Differential Cross-Cousin Marriage.

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Cf. MAN, 1962, 47, 179, 238; 1963, 11, 87

SIR,—In his latest comment on my theory of cross-cousin marriage, Dr. Leach purports to disprove my arguments by reference to his Kachin data. I do not understand his logic since it is very clear from his analysis that the Kachin do not practice any form of cross-cousin marriage. Dr. Leach maintains that a Kachin may marry a girl junior to himself who is a member of a wife-giving lineage. From his description it appears that the girl need have no particular genealogical relationship to her husband. Dr. Leach explicitly states that since there are a number of wife-giving lineages the girl will probably not belong to her husband's mother's lineage or even to his mother's clan.

Now the usual notion of cross-cousin marriage entails that a person marry a woman who is related to himself in one or another of a limited number of ways. If, for example, matrilineal cross-cousin marriage is practised among patrilineal descent groups, then this means that a man will marry his MBD, or MBS, or MBSS, or MFBSD, or MFBSS, etc. Marriage with the MBD is regarded as true cross-cousin marriage; marriage with any of the remaining kin types as marriage with a classificatory cross-cousin.

If unilineal groups, not having any past relationship, began a

systematic exchange of women, of either the symmetrical or the asymmetrical variety, it is clear that this would lead over a short period of time to a high incidence of marriage with true or classificatory cross-cousins. If the groups were patrilineal, then men would marry members of their mothers' lineages or more inclusive descent groups.

Among the Kachin, a wife-giving group is apparently any group from which another group has taken a wife. There seems to be no necessity to take wives with regularity from any particular group. This practice will therefore not lead to cross-cousin marriage as defined above. If my theory of cross-cousin marriage does not apply to the Kachin, it is simply because the Kachin do not practise cross-cousin marriage.

Although I have replied herein to Dr. Leach's criticisms, this note in no way endorses his practice of dismissing theoretical arguments by reference to a single ethnographical source. In the final analysis no theory can be a match for the awesome and far-ranging memories of individual ethnographers.

ALLAN D. COULT

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Confusion Worse Confounded: Mrs. Seligman's Birthday. Cf.

MAN, 1963, 112, 158

200 The Honorary Editor wrote his note on Mrs. B. Z. Seligman's birthday on the basis of information supplied to him that it would occur on 28 June. It would appear that a well meaning person who saw the page proof in the Institute's office corrected one, but not the other, of the two references to the date in the note, by informing the printers, but not the Hon. Editor, that 28 should be changed to 26. When the June issue appeared, a sharp-eyed reader pointed out to the Hon. Editor the discrepancy between the two references to the date, and he, still relying on the original information and wrongly attributing the discrepancy to a printer's error, therefore inserted his 'correction' in the August issue. When this in turn appeared, Mrs. Seligman herself was kind enough to telephone him to say that her birthday was indeed on 26 June (the day before the Annual General Meeting of the Institute). The 'correction' (1963, 158) should therefore be ignored, and the Hon. Editor can only express his regrets to Mrs. Seligman and others for his contribution to this sorry confusion by not verifying his facts with the only unimpeachable source.

REVIEWS

AMERICA

Ancient America: The Civilizations of the New World. By H.-D. Disselhoff and S. Linné. *Art of the World Series*. London (Methuen), 1961. Pp. 274, 60 plates, 148 text figs., 2 tables. Price £2 5s.

201 The market for art books shows no signs of diminishing, and they are even being imported. This example employs a somewhat unfamiliar method of production, since the coloured plates, most of which are very good, are pasted loosely into blank spaces which have been left for them in the text. They include some little-known objects which well deserved illustrating, including a fine feather shield and an impressive statue of the Aztec god Xolotl, both now in the Lindenmuseum, Stuttgart, and a very nice mummy mask from Pachacámac, now in Berlin. On the other hand, the bowl from Coclé, Panama, is neither particularly attractive nor really typical of the style. In the list of plates and maps, the publishers have uncomprehendingly inserted topographical headings which have produced absurdities like listing Sacsahuaman and one view of Pisac under Border Provinces of the Inca Empire, another view of Pisac under Ecuador, and a second view of Sacsahuaman under the Eastern lowlands; wrong on all four counts! In addition to the plates, there are numerous line drawings in the text, many of them placed in the margin. In general these convey a good impression, but there are some exceptions among the series illustrating Part I, for instance fig. 1 which does not give a good idea of a Folsom Point even if it is after Covarrubias, and fig. 28, a 'palma.' Some, e.g. figs. 41, 42 and 47, are copied, with due acknowledgment, from published sources, but not too accurately. An Olmec jade from the British Museum, fig. 37, drawn from an illustration published by Krickeberg, has at some point suffered some quite astonishing modifications. In the map of Colombia, Chibcha is misplaced; it is equivalent to Muisca which is correctly placed near Bogotá.

In a field unfamiliar to most of the public to whom the book is addressed, it is inevitable that the commentary should be more of an archaeological account than an artistic critique. Linné's part, which covers Mexico and Central America, presented a greater problem to the author than Disselhoff's, which covers the Andean Lands, by reason of the greater diversity of the known high cultures in the former area. I disagree with some points of detail, but both parts are adequate for the purpose for which they are intended, and Disselhoff's account of Peru shows a particularly good grasp of the present state of archaeological knowledge, although I find it surprising that he is given credit by his co-author for having established the affinity between the pottery of Tlatilco and that of Chavín. As regards the areas in South America outside Peru, he seems to have missed the important work of Evans and Meggers

on Marajó Island, although he refers to their later work on the Rio Napo. The allocation of a separate chapter to San Agustín, giving it equal prominence to that on Colombia where it belongs, is not justified. I find it equally unjustifiable that Disselhoff, in his account of archaeological exploration (p. 141), gives credit to German, Peruvian and French archaeologists for work in Peru, with no mention of the Americans whose contributions have been at least as great as anyone's, although references to them cannot but slip out later in the text. (One of these Germans is given credit for work which he did 30 years ago and is about to publish!)

Some slips in translation could have been avoided by consulting someone familiar with the subject. 'Efflorescence' may be strictly correct for a period of flowering, but when used for what is called 'Florescent' in some American publications, as it is many times, it sounds rather chemical. 'Clay tiles' is not a good equivalent for adobes (p. 161). The coastal valleys of Peru were not inhabited by many different 'races' (p. 172). For 'rounded' lines (p. 185) read 'curved.' Black ware decorated with 'polished fine-line incision' is what is called 'pattern-burnished,' or by American archaeologists 'line lustre,' and incision is not involved (p. 186). The translation may perhaps also be responsible for the use of the word 'knotted' in connexion with Preceramic textiles (p. 148), when 'twined' is correct, and for a confusion on p. 185 where a resinous binder is said to be used in painting before firing instead of after. 'Cursory' on p. 210 should be 'cursive.' Finally a 'loin board' (caption to fig. 67) sounds like a more uncomfortable garment than the well-known but curious object illustrated.

G. H. S. BUSHNELL

Les Incas. By Alfred Métraux. Paris (Éditions du Seuil), 1962. Pp. 192

202 This is a small book presenting a complete account of the most important details of Inca conquests, their state organization, religion and culture at the time of the Spanish Conquest. It includes a chapter on Andean prehistory, showing how important features in technology, art and government were inherited by the Incas. Another discusses the local organization of Andean peasant communities on which the Inca state was superimposed. The book concludes with a brief survey of the peoples of the Empire after the Conquest and their position today in continuity with the past and in the grip of present change. It is abundantly illustrated with some striking photographs and has appended a useful assessment of major sources as well as a guiding chronology of events.

No new facts are incorporated, but there is a mature consideration of some of the well-known data and related problems which raises the book above that of a mere compendium. For example, Dr.

Métraux applies his extensive ethnological experience of Amazonian tribes to Andean historical and archaeological material with interesting and useful results. This has produced a notable chapter on Inca religion and also an interesting account of contact between forest Indians and how their trading and raiding for metal goods gave rise to stories of a kingdom of fabulous wealth. Such accounts began the myth of *El Dorado* which lasted long after the conquest of Peru.

Dr. Métraux considers the vexed problem of the classification of the Inca state and compares it to Dahomey, bureaucratic, totalitarian—an ancient civilization without writing.

The careful assessment of well chosen material, the application of ethnological experience, the simple, direct and elegant style of writing make this a most useful book for students and for all who wish to possess a reliable and readable account of the Incas.

AUDREY J. BUTT

Maya Archaeologist. By J. Eric S. Thompson. London (Hale), 1963.

Pp. 208, 16 plates. Price one guinea

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This lighthearted account of 35 years' work in the field of Maya research is intended for the ordinary reader. Those who look for hair-raising adventures with wild animals and still wilder men in any book about the lesser known parts of America will be disappointed. There are no wild animals larger than ticks to be vanquished: the jaguar, spotted in the distance, always has disappeared before the writer can reach the place where it was seen. The men, the Maya, are often intelligent and hard workers and we are introduced to two of them who became valued friends of the author.

Of particular interest are the brief sketches of archaeologists at work in the same field. Sylvanus Morley, known to all Maya students by his books, but rather a hazy figure, suddenly becomes a real person, and how different from the preconceived idea!

The most important feature of the book is the description of travel in Yucatan, the Peten and British Honduras under conditions not so very different from those described by Stephens in 1841. Villages had little contact with towns; travel was often by mule or on foot and, on the rivers, by canoe. These conditions are rapidly changing: heavy lorries with equipment for oil wells are penetrating the forests of the Peten; air strips are cut out of the forest and journeys that used to take many days are now accomplished in a few hours; and in remote villages the juke box has arrived. Still unchanged, however, are the ticks, the red bugs and the fleas, which though mentioned frequently are not stressed as the trials and discomforts that they undoubtedly are.

The reader who is not well acquainted with the work of archaeologists in this area will find much that is difficult to follow. The reading of glyphs and the correlation of the Maya calendar with our own are discussed, but, in a book of this kind, written quite briefly and for those with little previous acquaintance with the subject, the enormous contribution made by the author to our knowledge on these matters will not be appreciated.

There are a few errors in the printing: on p. 27, Chichen Itza is translated as 'the month of the well of the Itza' and this may cause confusion in the mind of the reader who will meet many references to months but no other to the month. Also the references to plate numbers in the text are not all correct.

G. A. BATEMAN

Prehistoric Rock Art of Nevada and Eastern California. By

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Robert F. Heizer and Martin A. Baumhoff. Berkeley and Los Angeles (U. Calif. P.) (London: C.U.P.), 1962. Pp. 412, 24 plates, 201 text figs., 15 tables. Price £3 4s.

This large volume presents the results of an extensive survey and a stylistic analysis of the rock art in the western part of the Great Basin of North America. All known petroglyph and pictograph sites in this area are systematically tabulated and described, and the elements at each site are fully illustrated by photographs or drawings made from photographs. This corpus of materials was classified into 38 design elements according to an intuitively derived typology; the authors wisely did not become involved in attempts to interpret the numerous non-representational symbols. The geographical distribution of each of the design elements is shown on a

series of maps. A number of styles are defined—Pit-and-Groove; Puebloan Painted (largely limited to the southern part of the area); Great Basin Painted; Great Basin Scratched; and Great Basin Pecked, which is further divided into Great Basin Representational, Great Basin Rectilinear Abstract, and most important, Great Basin Curvilinear Abstract.

In the concluding chapters of the study the chronological and geographical distribution of each style is discussed in terms of culture-historical significance and as evidence for a hypothesis of the use of petroglyphs as elements of hunting ritual. The authors are able to demonstrate a high correlation between the location of petroglyph sites and known or probable game trails, the petroglyphs usually being placed along cliffs, in narrow canyons, near waterholes, and at other places favourable for ambush. It will be interesting to see if this correlation holds in the neighbouring semi-arid areas with rock art yet to be carefully studied, in Utah, Idaho, Oregon and Washington. Conclusions regarding the dating and cultural associations of the various styles are much less secure, since cases of superposition of styles are relatively few, direct association of petroglyphs with dated occupation sites is rare, and diagnostic artifacts are not illustrated in the art. The Pit-and-Groove style is believed primarily on the basis of relative weathering to be much older than the other styles, and is estimated to date between 5000 and 3000 B.C. in the Great Basin. The Great Basin Curvilinear style is equated with the Lovelock culture, dated between 1000 B.C. and A.D. 1500. The other styles are believed to have begun much later than the Curvilinear style. Since representations of figures demonstrably historic are rare and the local Numic-speakers disclaim any knowledge of the petroglyphs, the authors assume that the practice virtually ceased before the historic period.

This volume is an outstanding effort in the analysis of a difficult subject. In many areas of western North America petroglyphs and pictographs are present in such number and variety that local archaeologists for the most part have avoided tackling the problems which they pose. The authors have shown what can be accomplished by a systematic recording of sites and a distributional analysis of styles; their work stands as a challenge to archaeologists in neighbouring areas to report their data as fully.

RUTH GRUHN

The Hasidic Community of Williamsburg. By Solomon Poll.

Glencoe (Free Press), 1962. Pp. ix, 308. Price \$5.50

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The Hasidim are distinguished from other ultra-orthodox Ashkenazi Jews by certain features of their culture and social structure, and are renowned for the tenacity with which they cling to them. Dr. Poll's study deals with a group of Hungarian Hasidim who settled in Brooklyn shortly after the last war; his primary aim is to show how various internal relationships, values and practices serve one principal goal—the preservation of Hasidic identity.

In the first, shorter part of this book, the author gives an outline sketch of the relationship between the community and the wider society, as well as of the internal structure of the community and of its system of values. He shows how the family, the social stratification and the mechanisms of social control all contribute to the maintenance of Hasidic values, and he analyses the way in which the community combats the threat of assimilation to the values of the wider society, particularly the wider Jewish society with its compromises and accommodations. In the second part, the author discusses the economic activities of the community, and his attention to these is fully justified: for it is the peculiar form of these activities which enables the community to survive in its present environment: though the author does point out that this environment does favour these activities. Of particular interest here is the author's discussion of the way in which various commodities, like refrigerators, become gradually transformed into 'religious' objects, and of how this transformation fulfils a number of economic and other social functions.

This book is a valuable contribution both to the sociology of immigrant communities and to the sociology and ethnography of the Jews. The author's insight is at its sharpest when analysing the problems of social and cultural identity and of the group mechanisms of defence against any threat to it; his interpretations are well

illustrated by reference to incidents and to statements by informants. But the study as a whole exhibits a number of marked defects: the first part contains no description and analysis of actual networks of relationship; both parts lack demographic and other statistical material; there is no evidence concerning the alleged typicality of attitudes, values and norms.

Dr. Poll readily accepts the Durkheim-Radcliffe-Brown-Kingsley Davis theory of religion. And why not? This theory would seem to have been tailor-made to fit the Jewish case. (Was Durkheim not the descendant of rabbis?) And yet one is bound to express dissent. For in his last chapter, in which he brilliantly sums up his analysis, as well as in those in which he provides his evidence, the author of this book has convinced at least one reader that the Durkheim theory can be stood on its head; it can be argued that many or most features of social life in this community perform the function of maintaining Hasidic religious values.

PERCY S. COHEN

West Indian Migrants. By R. B. Davison. London (O.U.P.), 1962. Pp. xix, 89. Price 7s. 6d.

206 This is a most useful compilation of facts and figures concerning the migration of West Indians to this country. Its publication is timely in view of the recent legal restrictions imposed. The author has attempted to find reasons for

Ainu Creed and Cult. By Neil Gordon Munro, edited by B. Z. Seligman. London (Routledge & Kegan Paul), 1962. Pp. xviii, 182. Price £1 15s.

208 The Ainu are known to the general reader, if at all, for three things: their 'hirsute' appearance (T'ang records speak of beards four feet long), the bear ceremony (an account of which by Kitagawa should be read in a recent issue of *History of Religions*) and the so-called moustache sticks. Having always been a little worried by the devoting of so much art to such a trivial object, I was glad to learn in this book that these *ikubashui* are really 'prayer' or 'liberation wands,' important instruments of communication between Ainu and their gods. Today, most Ainu are said to live in semi-Japanese-style houses, to intermarry considerably with Japanese and to be given a Japanese education. They also provide, rather sadly as elsewhere in such cases, one of the leading attractions for tourists on the island of Hokkaido. Tantalized by the many apparent correspondences between Ainu and Japanese cultures—in reading Munro's descriptions the ritual of the tea ceremony kept on returning to my mind—the ethnographer may well be constantly tempted to turn to historical sources. Alas, despite the efforts of such writers as Chiri, Kindaichi and Takakura, these remain obstinately turgid and controversy rages against an insurmountable barrier set, according to J. E. Kidder, at some three centuries ago. It may well be that Ainu society fell apart too soon for it ever to be fruitfully included in the roster of 'our primitive contemporaries.'

The present book is a rescue operation in two senses: it consists of documents by a doctor, Neil Gordon Munro, collected at the end of the last century and in the first two decades of the present one and now edited, after many tribulations, by his devoted friend Mrs. Brenda Seligman with the help of a committee of distinguished scholars. Apart from a courageous attempt by the editor to piece together inadequate material of social organization, the book is mainly made up of straightforward ethnographical descriptions, first of basic concepts and of ritual paraphernalia (with many useful photographs), later of leading rituals such as those connected with the house, with ancestors, with exorcism, hunting, death and burial. Reminiscent of Shinto in their material aspects and complexity, little can be said about these beyond noting their scrupulous attention to detail and faithfulness to field observation. Those who have seen Munro's fine bear ceremony film will wish to follow up the problems it raised in these pages but the book is likely to remain principally as an important contribution to a very specialized field and as a tribute to the long and patient association between its author and the Seligmans.

E. MICHAEL MENDELSON

the differences in the rate of emigration from the various Caribbean territories. He categorically dismisses an interpretation in terms of a Malthusian formula—that population pressure on the land is responsible. He suggests that a possible explanation lies in the relationship between the *per capita* national income and the pressure of migration. This is a useful hypothesis which sheds considerable light on the discrepancy between Jamaican and Trinidadian statistics of immigration. The real contribution that Mr. Davison has made is to have charted a field of enquiry in which a great deal more research needs to be done.

FERNANDO HENRIQUES

Trail to California: The Overland Journal of Vincent Geiger and Wakeman Bryarly. Edited by David M. Potter.

207 New Haven and London (Yale U.P.), 1962. Pp. xvii, 266, map. Price 12s. 6d.

The Charlestown, Virginia, Mining Company set out some 80 strong from St. Joseph in May, 1849, and reached the Californian goldfields 110 days later, their daily progress logged first by Geiger and then by Dr. Bryarly. The few Indians encountered were mainly sightseers or wayside pilferers and so the narrative is not required reading for anthropologists—who, nevertheless, may well find it absorbing. Mr. Potter's editorial contributions are admirably full, and especially informative on the logistics of travel by wagon train.

GEOFFREY TURNER

ASIA

The Mongols of Afghanistan: An Ethnography of the Moghols and Related Peoples of Afghanistan. By H. F.

209 Schurmann. *Central Asian Studies*, IV. The Hague (Mouton), 1962. Pp. 435, plates, indexes, maps

Migrations of peoples and herds during the Chingiside period of Central Asian history introduced Mongolic-speakers into Iran and Afghanistan. The presence of descendants of these herding populations has been adumbrated in western literature with the publication of Leech's vocabulary of Moghol in 1838. Further attempts have been made during the intervening century to make precise the ethnic and linguistic affiliations of the contemporary Mongols of Afghanistan by von der Gabelentz, Ramstedt and Ligeti. Schurmann made field trips in 1954 and 1955 to investigate these problems. The results have been combined with study of library materials. In fact this is two books, the one a series of brief characterizations of a dozen major peoples of Afghanistan; the other an extensive ethnography of the Moghols. The first provides context for the second.

The Moghol habitat today is the Ghorat region of west-central Afghanistan. According to Schurmann they were descended in part from a nomadic group, Nikudaris, of generally Mongol affiliation, who came to Ghorat in the fourteenth-fifteenth centuries from Persia, where they had migrated in the thirteenth century. The move to Afghanistan was dissident to the Ilkhanide (Chingiside) rule. This view, while speculative, conforms more closely to known data than any other.

The ethnography of the Mongols covers social organization, both kinship and polity, law, religion, trade, agriculture and its technics, and habitations. It is systematic, accurate and well presented. The entire work is an encyclopaedic compendium of greatest utility in arrangement.

The author assumes incorrectly that the Mongols proper (presumably in the Classical period) possessed an Omaha kinship terminology. It is equally untenable to assert that the process of development of their current system out of the (erroneous attribution of the) earlier Omaha was subject to the course of social evolution. By his own description it is clear that non-evolutionary culture contact or acculturation played a part in the development of the present system. This system is generally found among Islamic peoples of north-eastern Africa and south-western Asia, and is distinct from that of Central Asia (where in fact Omaha is represented among contemporary Kalmuks and Kazakhs).

Some attention is paid to the process of formation of the Moghols, but the main focus is on ethnographical description. This somewhat

old-fashioned intent is excellently well achieved. It is a pleasure to recommend this book for the accomplishment of its task.

LAWRENCE KRADER

Social Structure of the Yami of Botel Tobago. By Wei Hwei-Lin and Liu Pin-Hsiung. *Inst. Ethnol., Academia Sinica Monograph No. 1. Nankang, Taipei, Taiwan, Republic of China, 1962. Text in Chinese with brief abstract in English. Pp. 285, plates, diagrams.*

In a review of the revised edition of Kano and Segawa's *Illustrated Ethnography of the Formosan Aborigines: Vol. I, The Yami* (MAN, 1959, 342) I noted with regret that a detailed sociological study of this fascinating society was ruled out by the circumstance that the island of Botel Tobago had become a political concentration camp. I spoke too soon. The fieldwork on which this present extremely impressive monograph is based had already been completed in July, 1957, and the 'some hundred immigrants' did not begin to arrive until 1958.

Messrs. Wei and Liu have tackled their work with truly Teutonic thoroughness. The Japanese-Chinese bibliography runs to 239 items with an additional 29 items in European languages. The text includes detailed genealogies of every living Yami. There is massively detailed information concerning kin corporations, marriages, kinship terminology, teknonymy, labour organization, and property categories, with a final rather more cursory chapter on legal procedures.

The authors themselves consider that their most important finding is that the Yami have a previously unrecorded patrilineal lineage system, but more fundamental is the fact that now for the first time we have the kind of detailed ethnographical evidence which can fit the Yami in the wider pattern of Formosan and Northern Luzon societies.

The research was financed by the Asia Foundation and the Harvard-Yenching Institute and it is very much to be hoped that the generosity of these foundations can be stretched to cover a translation of the whole work, tables, charts and all.

EDMUND LEACH

Himalayan Polyandry: Structure, Functioning and Culture Change: A Field Study of Jaunsar-Bawar. By D. N. Majumdar. *London (Asia Publ. House), 1962. Pp. 389, 19 plates, 4 maps, 5 charts, index. Price £4.*

The late Professor D. N. Majumdar was, until his sudden demise in 1960, Head of the Department of Anthropology at Lucknow University. He was an M.A. and Ph.D. (Cantab.) (these titles appear nowhere in his book), and a fellow student of ours at Professor Br. Malinowski's seminars at the London School of Economics in 1935-36. This is therefore a posthumous publication, which all those who knew him are happy to see at last come out in print.

We have been looking forward a very long time to reading this book because of our common anthropological interest in polyandry; especially as our studies, made principally in India and in the Himalayan region among Tibetans, purposely did not include the Jaunsar-Bawar area which we thought best to leave to our Indian colleagues under the guidance of Dr. Majumdar. In recent years, many articles and dissertations on the polyandry of this particular region have been published by these research workers, all of whom have given us considerable insight into the form which this matrimonial practice takes in this area.

That is why it is disappointing to have to admit now that *Himalayan Polyandry* does not, unfortunately, come up to expectation as it does not tell us anything really new about the polyandry of Jaunsar-Bawar.

For a book of this length (389 pages) with the title which it bears, there is relatively little about polyandry in it. The last sub-title should really have been used as the principal one, because this is actually, for all practical purposes, 'A Field Study of Jaunsar-Bawar,' and a very complete and detailed one at that. In Part I, the Analysis, there is a very good topographical description of the environment of the three villages chosen: Lohari, Baila (spelt Bayla

on the map) and Lakhamandal, in the Chakrata tehsil of the Dehra Dun district, U.P. The historical account too is very thorough and well done.

Polyandry enters the picture in Chapter IV of Part II, where Kinship Structure and its Dynamic Functions are discussed. But in our opinion, the analysis of the polyandrous unit is quite insufficient: no kinship terms are given, it is not said who constitutes the unit, there is no mention of ideas about incest, etc. Only the elder son in a family actually marries the common wife and we should be inclined, in the circumstances, to agree with Fischer here when he calls this practice 'polykoity' rather than polyandry. Majumdar coins a new term for what is generally called conjoint marriage: 'polygynandry,' for families in which a number of women are shared by brothers. And he is very sweeping when he attributes polyandry to geo-economic causes and leaves it at that (p. 75).

It is incorrect to say that there is polyandry in Kulu. There is what it has been agreed to call 'cicisbeism' in that area, but it does not involve marriage. This applies to Malana too, where it is not right, surely, to look upon the concubinage which exists as necessarily a remnant of polyandry.

The most interesting fact reported by Dr. Majumdar is the behaviour of the common spouse, the *ryanti*, when she is at home with her parents and changes her kinship status to *dhyanti* (kinswoman). In the parental house, her promiscuity is tolerated and she appears to indulge in it freely as an escape valve for the otherwise severely restrained behaviour expected of her as a spouse. This is something which we have never encountered elsewhere before, neither in the field nor in anybody's writings, and for this reason, we think that this is the main contribution to the knowledge of polyandrous people which Dr. Majumdar has made.

PETER, PRINCE OF GREECE AND DENMARK

Caste in Modern India and Other Essays. By M. N. Srinivas. *London (Asia Publ. House), 1962. Pp. 171. Price £1 10s.*

Since the publication of his famous work on the Coorgs in 1952, Professor Srinivas has written a number of highly germinal essays. Some of these are devoted to the analytical ethnography of rural Mysore; in others he discusses more general themes (like 'Caste in Modern India' and 'Hinduism'), or analyses various concepts, problems and processes (such as 'Varna and Caste,' 'Castes: Can they Exist in the India of Tomorrow?', and 'A Note on Sanskritization and Westernization').

The 11 essays included in the present volume, most of them well-known to Indianists, fall into the second category. Except for some 'verbal alterations,' the essays are reprinted here as originally published. However, the author provides an Introduction in which he briefly discusses some of them. He also refers to 'a certain amount of change' which his views have undergone during the eight-year period to which the essays belong. The reader would have got a better idea of this change had the original dates of publication been mentioned.

Since limitations of space preclude a lengthy review, we will comment only on two topics. First, (what Srinivas calls) the "'book-view'" of Indian society and culture. More than once he rightly warns against the dangers of a preoccupation with traditional texts; in the past it has led to an oversimplification, and even falsification, of the social reality. Apparently there are several important areas of sociological research in India which the field-worker can tackle adequately without reference to these texts. However, when the people under study themselves refer to the contents of these traditional sources, in explanation or justification of their behaviour, it is difficult to ignore them. Srinivas's comments draw attention to an old but still unresolved problem: the proper estimation of the place and value of traditional textual sources in sociological studies of Hindu India.

Second, Sanskritization as a two-way process. As is well known the concept of Sanskritization and the process that it describes were first discussed by Srinivas in the Coorgs book itself. Therein the element of imitation was emphasized: how the members of a low caste try to improve their status by 'the adoption of the Brahminic way of life.' In the essay on Hinduism he explains that

'Because Sanskrit was the language of these highest groups, this process of cultural propagation is here called "Sanskritization"'. He further points out that though Hinduism does not sanction proselytism, 'this does not mean that there is no conversion in it.' Various factors, like the improvement of communications in modern times and the activities of certain sects (such as the Lingayat and the Swaminarayan), also have aided the process of cultural propagation. The implication of Srinivas's remarks seems to be that two complementary processes—mimesis *from below* and propagation *from above*—have been at work. To work out this implication more fully, the two processes will have to be adequately recognized and their mutual relationship clarified.

T. N. MADAN

The Hindu Family in its Urban Setting. By Aileen D. Ross. Toronto (U.P.) (Longon agents: O.U.P.), 1961. Pp. 325, appendices, tables, index. Price £3

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This study is an outcome of the author's one year of research in India, and is based on the data collected by a 'research team of six Hindus' who together spent 'a total of 31 months' interviewing 'friends or acquaintances' of their own choice (p. 299). The 157 interviewees consisted of 84 males and 73 females. Among the males, all except six had university degrees (including eight Ph.Ds.) and among the females, all except nine had more than a High School education (p. 302). The sample is thus heavily weighted in favour of individuals who are highly educated, and, in a large measure, come from prosperous and sophisticated families.

India has always been considered to be one of those places where the classical joint family has been the rule rather than the exception. According to the author also, the nuclear family 'is found more often in large towns and cities than in villages' (p. 35), and 'the small joint family is now the most typical form of family life amongst the middle and upper middle urban classes in India' (p. 49, emphasis added). In this study, carried out mainly in Bangalore, a city in South India, the author's main objective has been 'to analyse the factors which are tending to break up the large joint family, and to seek out the main ways in which these changes are affecting the family roles' (p. 280). The structure of the family has been defined here to include several sub-structures—a biological sub-structure of age, sex and kinship, an ecological sub-structure of household groups, and sub-structures of rights and duties, of authority and sentiments—for purposes of analysis.

The author shows considerable insight in her understanding, analysis and organization of the material. Her typology of the families has been carefully evolved and her analysis of the sub-structures of rights and duties, and of sentiments, has been done with imagination and ingenuity. The nuances of change in authority and reciprocal obligations have been clearly brought out with the help of well documented case studies.

There are, however, a few points that may be made in criticism of this book. First, the all-inclusive title is somewhat misleading in view of the fact that while India is a land of contrasts and regional peculiarities and diversities, the author's sample is biased, highly selective and localized. Part of the author's generalizations, therefore, have only a local or a regional validity. Secondly, her assumptions regarding the distribution of nuclear and joint-family types, in rural and urban India, are not borne out by other studies. An interesting point which the author could have usefully brought out in her discussion is how the old joint-family pattern gets re-established in the 'urban setting' in the event of economic success. In the author's sample, 33 nuclear families changed to large or small joint families (pp. 36f.), and 20 individuals lived in joint families throughout. A large joint family, if economic resources permit its smooth continuance, is probably also a status symbol even in the urban setting.

Nevertheless, it is a useful and a well written book which will be read with interest by sociologists and anthropologists. It provides useful leads for future work and some of the hypotheses advanced here may be fruitfully tested elsewhere in India in different regional settings.

RAM P. SRIVASTAVA

Gopalpur: A South Indian Village. By Alan R. Beals. New York (Holt, Rinehart & Winston), 1962. Pp. x, 100. Price 10s.

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Dr. Beals's book is one of a series of 'case studies in cultural anthropology,' which 'are designed to bring to students, in beginning and intermediate courses in social sciences, insights into the richness and complexity of human life, as it is lived in different ways and different places.'

The book consists of eight chapters devoted to (i) a general description of Gopalpur, (ii) patterns of child-rearing, (iii) marriage, (iv) caste, (v) religion, (vi) social control and factions, (vii) social change and (viii) the region to which Gopalpur belongs. The reader gets many interesting glimpses of social life in the village, but not enough illumination, and is left with a feeling of wanting more. Two examples should suffice: (i) The chapter on *jati* (caste) tells us hardly anything about the internal structure of caste. Various types of intercaste economic transactions remain largely undifferentiated, and the significance of the difference between annual payments in kind and on-the-spot payments in cash is not touched upon. (ii) The chapter on religion is so concise as to make it hard for a beginner to determine what applies to Hindus and what to Muslims. Thus Beals does not make it clear that it is a Hindu, and not also a Muslim, who may be named after Hanumantha, or that it is only the Muslims who bury their dead. One of the real fascinations of Gopalpur obviously lies in the influence which the Hindus and the Muslims have exerted on each other's ways of life, but the author is tantalizingly brief on the subject. One is not asking for too much in wanting a fuller analysis of such curious situations as a Brahman priest ceremonially washing a Muslim's tomb.

Beals successfully indicates 'the richness and complexity of human life' in Gopalpur, but, within the limits of the available space, is not always able to provide the 'insights' promised at the outset. That he is capable of doing so is beyond doubt, and we will look forward to extended publication of his material.

T. N. MADAN

Myth and Reality: Studies in the Formation of Indian Culture.

By D. D. Kosambi. Bombay (Popular Prakashan), 1962. Pp. x, 187. Price Rs 12.50

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This is a collection of five essays, four of which have been previously published. Professor Kosambi begins by seeking to explain certain aspects of the history of Hinduism, but these explanations do not always carry conviction. Thus he says of the licentious Holi festival that 'when food gathering was the norm, with a most uncertain supply of food and meagre diet, a considerable stimulus was necessary for procreation. Obscenity was the essential in order to perpetuate the species' (p. 10). It is more probable that, in the words of Dr. R. Patai, 'the general union of the sexes at the seasonal fertility feasts may be regarded as a democratization of the originally aristocratic representation of the sacred marriage.'

It is with the sacred marriage that he is concerned in Chapter II, in which he puts up a good case for regarding the myth of Urvashi and Pururavas as an account of a sacred marriage followed by the sacrifice of the bridegroom. He holds that the last item is evidence for a matriarchal society such as that postulated by Briffault and Robert Graves, both of whom he cites with approval. It is unlikely, however, that there ever was such a society.

In the district of Poona there are many ancient trackways. These are strewn with microliths, which are in places so numerous that in the author's view they must have taken thousands of years to accumulate. Beside these trackways are many shrines of aniconic stones which represent mother goddesses, and which are still worshipped, and painted red, by the villagers. The villagers also worship gods, whose cult is, in some instances at least, associated with hook-swinging and traditions of human sacrifice. The author holds that these gods came in with the Aryans and that the marriage of a god to a previously unmated goddess indicated a fusion of cults (p. 86). But a sacred marriage cannot be at the same time a form of prehistoric ritual and the reminiscence of an historical incident.

Professor Kosambi is a native of Goa, and in the last chapter gives an account of the archaic system of land tenure which obtained

there. In the course of it he says: 'Being the first male child in the direct line after the death of my grandfather, I automatically inherited his soul, nickname, was given his actual name on the twelfth day and though my widowed grandmother's favourite grandson, had to be addressed by her in the indirect discourse necessary for every modest woman of the class, so real was the transmigration of the soul' (p. 158).

Though some of his theories are open to criticism, Professor Kosambi's book is very well written and interesting. It is also well produced: I noted but three trivial slips. RAGLAN

Indian Anthropology: Essays in Memory of D. N. Majumdar.

London (Asia Publ. House), 1962. Pp. 000. Price £3

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These essays, originally intended to form a presentation volume for Professor Majumdar's sixtieth birthday, have become a memorial volume. He died in 1960.

Such volumes inevitably present a problem for the reviewer, a problem not unconnected with the intentions of those who have contributed to them. It is an unfortunate fact that the contributions to many such compilations are lost to the mainstream of scholarship. A name as the sole link between the essays is not enough to ensure a wide or lasting circulation. Such considerations cannot be present in the minds of contributors.

There seem to be two possible solutions which can produce not only a memorial but a living one. Either the essays are important exegeses of one man's thought—*The Philosophy of Ernst Cassirer* is an example—or, as in *Hommage à Georges Dumézil*, they are the products of research on themes inspired by or closely associated with the work of the man honoured.

In the volume under review the presence of essays by archaeologists, physical anthropologists and social anthropologists testifies to Professor Majumdar's wide range of interests and to his immense energy. But these essays by specialists show, for the greater part, how clear are the divisions which have come about since Professor Majumdar entered the field of anthropology. Most apparent is the separation of physical anthropology represented here by seven essays. It is a pity that these authors did not take the opportunity offered to demonstrate the relevance of their enquiries to the interests of their associates.

The archaeology section seems the most fitting to a book of this nature. The essays are complete in themselves and are not merely intelligible to non-archaeologists but intellectually open to findings in other fields. The authors' enthusiasm for their subject is contagious and at least the social anthropologists of India must be grateful for these glimpses of their meticulous restoration of history.

Among the social anthropologists, Professor von Fürer-Haimendorf's essay 'Moral Concepts in Three Himalayan Societies' seems the most suitable. The remaining authors, with the partial exception of Dr. Meyer, write in general terms about general problems of their subject. Precise examples of the kind of work which social anthropologists are doing in India might more fittingly have combined piety with scholarship. It is a great pity that the longest essay in this section, and the one which claims to make a particular contribution, Professor Ramkrishna Mukherjee's 'On Classification of Family Structures,' should be a disastrous example of pretentious specialization in a volume dedicated to a pioneer of the sciences of man in India. D. F. POCOCK

Mesopotamia and the Middle East. By Leonard Woolley. *Art of the World*, VII. London (Methuen), 1961. Pp. 259, illus. Price £2 5s.

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This, one of the last works of the late Sir Leonard Woolley, forms part of a series of regional histories of the visual arts, a fact which is reflected in its scope. It is clear that the organizing editor has decided that ancient Persia should be given a volume to itself (to be contributed by Dr. Edith Porada, as we learn from p. 41, note 3), but while this is admirable it is utterly out of scale to squeeze the whole of Sumerian, Babylonian, Assyrian, Hittite and several other less well represented arts into an equivalent amount of space. The book sets out to deal with the art of western

Asia from prehistoric times to the Islamic conquests, and the yawning gap left by the omission of Persia is very obvious. In the title of Chapter III, 'Elam before the Coming of the Indo-Europeans,' one can almost see the words of the organizing editor anxious to get this inconvenient loose end out of the way for the volume on Persia, and the leap from Chapter VIII, 'Assyria and Neo-Babylonia,' to Chapter IX, 'Graeco-Roman Art in the Middle East,' gives the latter the air of a sort of appendix afterthought. In planning the series it would have been better, if Persia was to be treated separately, to allow also a separate volume for Anatolia and the Hittites, and to have permitted a brief chapter on Persia in its right place here, even at the risk of overlapping within the series.

Apart from this it is a very good idea to include a discussion of Graeco-Roman art in the area, instead of finishing with Alexander the Great as is usually done, turning point though this was. When this is said, however, the rest of the book does not provide anything which has not been given just as well in Frankfort's *Art and Architecture of the Ancient Orient*, or now in Seton Lloyd's *Art of the Ancient Near East*, though this last was published at the same time as the present volume.

It is not fair, however, to blame this upon Sir Leonard Woolley, who must have been invited late in life to undertake an ill conceived task. He will not be remembered for books such as this, but for his achievements in the field, chiefly at Carchemish, Ur and Alalakh, where he showed himself to be in the heroic tradition of Layard and Rawlinson. Like them his prose, in spite of certain signs of carelessness, is easy to read, and free of the jargon which permeates much of the archaeological literature of today. Something of his contribution to the study of the ancient Near East may be judged from the fact that 12 of the 60 colour plates and 15 of the 73 text figures illustrate objects whose discovery was in whole or in part due to him. A good many of these are of course from the 'Royal Tombs' of Ur, but there are also such things as the rhyton of gold and silver (p. 143) whose acquisition is so amusingly narrated in *As I Seem to Remember*, pp. 35f.

In the presentation of the historical setting, one or two points call for comment. The statements regarding the Hittites on pp. 24-26 are not entirely satisfactory. The author here assumes his theory, by no means universally accepted, that the Khirbet Kerak people were the ancestors of the Hittites, and that the latter consequently came to central Anatolia from the Araxes valley via north Syria. This is presumably why the Hittites are said to be of 'Caucasian stock,' for this is not correct racially or linguistically, so must be meant geographically. The statement that the Hittites were 'Aryan-speaking' is also of course incorrect. Again the statement on p. 30 that the Israelites arrived in Palestine 'with the Habiru in the time of Akhenaten' gives a view of the Exodus now held by very few.

There would be no profit in citing points of this kind through the whole book (except to mention a few, more obvious, errors: p. 32, for Tiglath-pileser IV read Shalmaneser V; p. 125, for 'Akkadian merchants' read 'Assyrian merchants'; p. 226, there is no evidence that Sargon and Ashurbanipal 'fought campaigns in the Yemen'; p. 224, fig. 73 caption, for B.C. read A.D.; p. 235, for Tell Uzair read Tell Uqair), but they do serve to warn the reader that not all statements can be accepted without question. In spite of this, however, many of the artistic judgments are just and illuminating.

In form the book is mixed. Most of the colour plates are excellent, but the text figures are poor. These are mostly pen sketches which would adorn a dig note book but which are almost without exception quite unsuitable for a book of this kind. The text is clearly printed (in Holland), but causes a certain irritation in that none of the paragraph openings are indented. This may be in keeping with modern book design but there seems little point in it. It is also strange that the list of plates, figures and acknowledgments should come before the table of contents. There are a fair number of misprints.

The shortcomings of the book must however be attributed to the publishers rather than the author, as they acknowledge themselves in a preliminary note. One can appreciate that to deal with a manuscript without the author to consult is no easy task, and there are many good things in the book to compensate for the bad.

T. C. MITCHELL

PLOUGHS (ARDS) OF WEST NEPAL*

By Robert Aitken, Stockbridge, Hants.

218 Mr. John Tyson has kindly sent me for examination photographs of ploughs and ploughing: first, from his West Nepal expedition of 1953¹ showing the ploughs, both of the Nepalese Bhutias (Bhotias),² farming traders living in villages of the Nampa Khola in the extreme north-west, and of the Dotials, farmers and porters of the Nepal Midlands, to the south (figs. 1 and 2), and, later, from his Kanjiroba Himal Expedition of 1961³ showing the ploughs used at Kaigaon village in the Inner



FIG. 1. PLOUGH IN NAMPA KHOLA, WEST NEPAL

Photograph: John Tyson, 1953

Himalayan Region on a tributary of the Bheri River, and on the neighbouring Bhutia settlement. I am indebted also to the late Dr. Rudolf Jonas, leader of the Austrian Saipal Expedition of 1954, kindly introduced by Mr. F. G. Payne, for photos of ploughs used by non-trading farmers in the Seti basin at Dhalaun (fig. 3) and by Nepali farmers lower down at Chainpur. Ploughs of the Nampa Khola—Dhalaun type are shown also in a Himalayan ploughing scene reproduced by Payne.⁴

* With six text figures

Quite unexpectedly, all these ploughs may be classed with Leser's *Pflug mit Kruemel*⁵ and, more specifically, with the *araire dental* of Haudricourt and Delamarre,⁶ having sole as master part into which both the curved



FIG. 2. PLOUGH AT BIUNERA, WEST NEPAL

For use in very small fields with bunds (dividing ridges) over which the plough would often have to be lifted (? explanation of handle). Photograph: John Tyson, 1953



FIG. 3. PLOUGH AT DHALAUN IN THE SETI BASIN

Photograph: Rudolf Jonas, 1954

beam and the handle, characteristically vertical, are mortised. Still more specifically, they belong to the variety in which the handle shares a mortise with the beam. Using for convenience my own notation, I refer to the class as

Sy (*y* for the vertical handle), and to the variety as Sy'. Technically of course the ploughs are ards, being of symmetrical form.

In the Asian region to which these ploughs belong the distribution of Sy is consistent with the conception of a focal area lying south of the Hindu Kush in eastern Afghanistan and extending south-westwards into central Pakistan. In such an area, at least, Sy is recorded almost exclusively today,^{7, 8, 9} and the area includes, perhaps by coincidence, both the 'Hellenistic' sites of the Panjshir Valley and those of Græco-Buddhist bas-reliefs of the Gandhara period found to the north-east of Peshawar, on which Sy is shown clearly.^{10, 11}

From this area Sy has been carried in recent times to the Badakshan Tajiks at Tli,¹¹ and by Western Katirs (Katis), on return from exile, to the Ramgul (Ramgel) Valley of Nuristan¹²—less recently, to Kashmir,¹³ with, for Ladakh, a record of Sy'.¹⁴ In another direction, a broken 'trail' of records leads by Clarkabad,¹⁵ Amritsar¹⁶ and Solon, south of Simla,¹⁷ to Garhwal, with the most westerly 'Bhutia' settlements in 1857 (Bot-Rajputs)¹⁸ and today the related Jadh of Tehri-Garhwal.¹⁹

When mapped, these records exhibit Sy as thrusting eastwards among ploughs, conveniently denoted *H* ploughs (indicating a hinder portion as master part): to north, mountain ploughs of the simplest two-piece form like the Kashgar *omach*²⁰ are used by the Eastern Katirs and Chitrali²¹ the Hunzukuts²² and Sherpas,²³ but a more articulated form with a vertical handle by the Tibetans²⁴; to south, a plough consisting fundamentally, like the ploughs of the Santal²⁵ and Assami,²⁶ of a shoe-like piece, of varying 'instep,' with high back in which the beam is inserted and which carries a separate handle, usually vertical, is used today at Patan²⁷ and Pokhara (Pokhara)²⁸ in central Nepal, and is recorded for Hariana, due east of Amritsar,²⁹ reappearing in Afghanistan south of the Hindu Kush among the Salang Tajiks (with independent handle reaching the ground) and, on a more modest scale, at Kalat-i-Ghilzai, north-east of Kandahar.³⁰

It seems safe to assume that Sy', which is recorded only for mountain terminals of this thrust, has arisen as an adaptation of Sy to conditions there. This is in direct contrast to its occurrence in the Caucasus region, where it has been very widely recorded, from 1829 (for Kakhetia, Parrot)³¹ to the late nineteen-forties (for Dagestan, Nikol'skaya and Shilling),³² while Sy has not been recorded at all; Sy' appears there in succession to less articulated forms which had the handle on the rear of the beam,³³ its *minimal displacement* (with minimal alteration of balance) suggesting that handling, as the prime consideration controlling structure, was the key to this very distinctive form.³⁴

In respect of handling, the Sy' ploughs of Nampa Khola and Dhalaun clearly make easier by their relative compactness the 'well-over-the-plough' position characteristic of the *H* plough without sacrificing the possibility of free running characteristic of the *S* plough—witness the description of the Leningrad Museum plough as a 'slide plough,' plough with a runner (*póloz*).³⁵

This is well illustrated in Mr. Tyson's 1953 ciné film,

where there is a startling contrast between the 'well-over-the-plough' handling of the first shot and the freer running of the second, and one is tempted to assume that Sy' was adopted first in the Himalayan region by people acquainted with both the *H* and the *S* ploughs to secure this combination of advantages.

A purely structural view of Sy' also indicates 'compactness,' showing the handle as the functional equivalent of the fitment (wedge, peg, curved brace) so frequently found in that Asian region securing the beam at its base to the sole, or even as a sheath.³⁵

In the Kaigaon ploughs there are, however, material differences which affect the handling. There the beam is inserted in the *centre* of the sole, slit to allow adjustment of its position by wedges (fig. 6), thus 'setting' the plough for a suitable working depth. Also it, or a pole rigidly joined to it, is so loosely attached to the yoke as to swing freely under tension, so that these ploughs are, dynamically speaking, of a type intermediate between the 'swing plough' and the 'yoke plough (*Jochpflug*)' proper. If the vertical component of the swing is adequate, it is thus possible by sideways handling (see Appendix) to keep the plough to its depth by downward pressure only, applied by the foot behind the beam, now over the centre of pivoting (fig. 4) if the plough runs too deep; or by the free hand in front of the beam if it runs too light; awkward lifting being thus largely avoided.



FIG. 4. PLOUGH IN ACTION AT KAIGAON IN THE BHERI BASIN
Photograph (1054): John Tyson, 1961

Side control³⁶ (see Appendix) may arise for convenience on steeply sloping ground as in Payne's ploughing scene, and the swing of a pole for its lateral component to disturb the oxen less on rough ground. But neither consideration applies at Kaigaon, where I suggest provisionally that the

Bhutia sideways handling shows that advantage is in fact taken of the vertical component as indicated above; also, more tentatively, that this is the key to the structure of the Kaigaon plough.

Notes on Mr. Tyson's photos and ciné films, based in the first place on his own descriptions and on his careful analysis of the 1953 film, follow immediately. For such ciné films Dr. Axel Steensberg has made recently an eloquent plea.³⁷ To the points noted by him for observation I would add the details of attachment to the yoke, on which depends primarily the dynamics of control, pointing out that this attachment may vary according as the plough is under draught, or halted, or alternately one or the other, e.g. when turning. Even in the yoke plough proper, it is normally such as to make these variations possible.

Appendix

Mr. Tyson took 10-second 'shots' of two consecutive courses of the Nampa Khola plough (1953), but 'stills' only of the Bhutias breaking up ground at Kaigaon (1961), where the only 'shot' (besides transparencies) showed local people ploughing ground already broken up with the mattock.

Structure. (a) None of Tyson's ploughs has a carinate sole or (except the Bianera plough) any metal part. A separate wooden share tenoned into the sole is peculiar to the Kaigaon ploughs. (b) In Payne's plough the pole/beam projects beneath the yoke in the normal yoke-plough manner. For the Nampa Khola plough a rather more flexible connexion was inferred from the indifference of the oxen to a sharp downward-and-backward movement of the handle in the 'easy' course. At Kaigaon the classical pin (horizontal here) -and-ring (of rope here) arrangement is distinct (fig. 5).



FIG. 5. PLOUGH IN ACTION AT KAIGAON

Photograph (1055): John Tyson, 1961

Hands and feet. (a) On the Nampa Khola plough no downward pressure with either except once with the hand (on the 'laborious' course). (b) At no time did the ploughman tread on unploughed land (except when straddling the furrow): he changed handhold correspondingly at each turn. Much evidence from elsewhere

suggests that this may be a practice widely recognized as desirable with any ard in the 'Mediterranean' zone (cf. Columella, *R.R.* II, 2,25), handhold (left-hand or right) being subordinate to footwork.

Alternating courses. In the 1953 film the plough moved first in a furrow already opened, when the attitude of the ploughman was mainly casual; then in a new furrow opened alongside the first, when the ploughman acted energetically, even lifting the plough thrice, upwards and towards himself, with one hand, while bracing himself strongly with feet straddling the furrow.



FIG. 6. PLOUGH WITH SOLE DISMANTLED AT KAIGAON

Photograph (1059): John Tyson, 1961

The contrasted 'laborious' and 'easy' actions in two Kaigaon stills (figs. 4 and 5) of the plough moving in opposite directions though along different lines, suggests that the Bhutias practise there also the alternation of courses along the same line. This system, adumbrated by Columella (*loc. cit.*), puts a single plough to act, in 'Alpine' parlance, as 'fore-plough' to itself.

Tilting. In 1953, there was no continuous tilting on the 'laborious' course; on both courses the apparent object was to avoid minor obstacles, change of direction being appreciable; in 1961 (fig. 5) soil is perhaps moved outwards (note varying effects of tilting). The analogy with Columella is therefore defective; in its first course his plough acted, perhaps primarily, as a proto-coulter (anticipating later fore-ploughs), with 'a furrow made sloping on (not to) the landside,' in the words of Adam Dickson, whom Dr. Steensberg misread here. A closer analogue appears to be provided by Mr. Payne's scene, interpreted—as he agrees it may be—as showing a fore-plough strongly tilted towards the broken ground being followed by an identical plough held nearly at right angles to the slope (upright). But the analogy is superficial, since gravity is the determinant force here.

Side control. This is little evident at Kaigaon, in spite of the position of the handle, except in the form of sideways handling, which seems pointless except for the purpose suggested in the text. Both forms of downward pressure mentioned there were recorded. Circumstantial evidence to confirm this view of the dynamics was provided by the 'local' ploughman (who walked pretty casually and very often behind the plough), when he suddenly tilted the handle forward at one point, undoubtedly to bring the sole to its depth, and at another point pressed on the rear of the sole with his foot, surely with the opposite purpose.

Adjustment of the beam. Perhaps corrected frequently; certainly by the Bhutia ploughman during a very short period of observation. Note that a simple shortening or lengthening of the rope attaching the beam to the yoke would not meet fully the dynamical requirements suggested.

Acknowledgment

I am most grateful to Miss D. Regel and Miss E. M. Buxton for help with Russian translations and mapping respectively, to Mr. R. Simmonds, Andover, for kindly running through Mr. Tyson's 1953 film for me, but above all to Mr. D. Wardle and Miss D. Bright for assistance with the 1961 material.

Notes

¹ *Alpine J.*, Vol. LIX, No. 289 (November, 1954), pp. 421ff., especially map facing p. 427.

² A. H. Savage Landor, *Tibet and Nepal*, 1905, pp. 48, 60.

³ *Alpine J.*, Vol. LXVII, No. 304 (May, 1962), pp. 120-129; *Geog. Mag.* (January, 1963), pp. 532-546.

⁴ F. G. Payne, 'The Plough in Ancient Britain,' *Archaeol. J.*, Vol. CIV (1948), Plate VII, facing p. 96, reproduced from *Country Life*.

⁵ P. Leser, *Entstehung und Verbreitung des Pfluges*, 1931, *passim*.

⁶ A. G. Haudricourt and M. Jean-Brunhes Delamarre, *L'Homme et la Charrue*, 1955, p. 78 *et passim*.

⁷ A. Scheibe, in *Deutsche im Hindukusch . . . 1935, 1937*, p. 106, fig. 36, 2.

⁸ N. I. Vavilov and D. Bukinich, 'Agricultural Afghanistan,' *Bull. Applied Botany*, Vol. XXXII (1929), Supplement 33, p. 72, fig. 43.

⁹ Mr. E. J. M. Dent, late of the Pakistan Civil Service, tells me that the *yewe* (Pushtu) used widely in Central Pakistan is an *Sy'* plough, with long, slender brace connecting handle and beam; a seed funnel replaces the handle at seed time. Cf. Haudricourt and Delamarre, Plate XI, 40, facing p. 352.

¹⁰ Leser, *op. cit.*, Plate XVIIIa, facing p. 376.

¹¹ Vavilov and Bukinich, *op. cit.*, p. 183, fig. 134.

¹² Scheibe, *op. cit.*, p. 105 and p. 177 (by A. Herrlich).

¹³ 'Kashmiri farmer' (ploughing), photograph: Paul Popper, B.B.C. *Broadcast to Schools: Geography*, March, 1958. Introduced perhaps during eighteenth-century Afghan expansion.

¹⁴ Leser, *op. cit.*, p. 368, fig. 219, perhaps from an area penetrated by Muslim influence in the nineteenth century. Justice William O. Douglas tells me that he thinks that he saw only Tibetan-type plows in 1951.

¹⁵ Photo of c. 1920 by the late Miss M. T. Powell; by favour of the Revd. N. G. Powell.

¹⁶ Leser *op. cit.*, p. 368; marked 'z' but perhaps supported by Clarkabad and Solon records.

¹⁷ W. Koppers, *Die Bhil in Zentralindien*, 1948, Plate IV, 3.

¹⁸ H. von Schlagintweit-Sakuenluenski, *Reisen in Indien und Hochasien*, Vol. II, 1871, p. 447.

¹⁹ J. Tyson, 'Himalayan Traders,' *Geog. Mag.*, July, 1953, pp. 139ff.

²⁰ N. I. Vavilov, 'The Role of Central Asia in the Origin of Cultivated Plants,' *Bull. of Applied Botany of Genetics and Plant Breeding*, Vol. XXVI, No. 3 (1931), p. 23, fig. 26 and p. 25, fig. 27.

²¹ A. Scheibe, *op. cit.*, p. 106, figs. 36, 3 and 36, 4 (Chitrali; with wooden share).

²² E. O. Lorimer, *Language Hunting in the Karakoram*, 1939, Plate X, 2, facing p. 114.

²³ C. von Fürer-Haimendorf, photograph 4 in E. Maillart, *Land of the Sherpas*, 1955.

²⁴ L. Havemeyer, *Ethnography*, 1929, fig. p. 447.

²⁵ Leser, *op. cit.*, p. 374, fig. 225.

²⁶ F. Ratzel, *Völkerkunde*, 2nd edn., 1894-95, Vol. II, p. 542, plough on right; see Leser, *op. cit.*, p. 375.

²⁷ M. Lobsiger-Dellenbach, *Népal: Cat. ethnog. népalaise du Mus. d'Ethnog. de la Ville de Genève*, 1954, p. 8, Plate I, 6.

²⁸ Information kindly supplied by Mr. S. T. Wall, Nepali Evangelistic Band, Pokhara, in 1956-57. The metal bar share 'about 9 ins. x 1 in. x 1/4 in. is fixed into a 1/4 in. slot' on the under side of the 'shoe.'

²⁹ The 'Lautan' plough; Science Museum, London, 1933-218, model one-third full size, with low handle 'curving gradually forward,' metal bar share (*phali*) and an underlying wooden share (*chou*) both secured by a wedge in the rear. From description kindly supplied by Mr. G. M. Lane.

³⁰ Vavilov and Bukinich, *op. cit.*, p. 183, fig. 133, and p. 182, fig. 132, 4.

³¹ Leser, *op. cit.*, p. 352, fig. 204. By exception a swing plough. The coulter suggests relegation to use as fore-plough.

³² Z. A. Nikolskaya and E. M. Shilling, article in *Sovetskaya Etnografiya*, Vol. IV (1952), pp. 95ff. and p. 100 (for 'runner').

³³ For a parallel to one stage of the 'evolutionary development' suggested for Dagestan, compare with each other A. Miller's two Abkhazian ploughs (*Materiali po etnogr. Rossii*, Vol. I (1910), p. 71, fig. 19). Note the significance in this context of Leser's important conception of 'general form' (*Gerippe*), *op. cit.*, p. 354.

³⁴ Without prejudice to the wide range of *Sy'* handles, from the high, slender handle of the Georgian plough in Leningrad Museum (Vavilov and Bukinich, *op. cit.*, p. 187, fig. 139) to the low, squat, forked handles of an 'Avar' plough—perhaps low for steeper slopes and forked for alternate use of hands singly (Comte E. de Zichy, *Voyages au Caucase*, 1897, no. 731; Plate LXXXVIII, 7).

³⁵ E.g. a wedge at Tli,¹¹ peg on the Koh-Daman plain,⁷ curved brace at Gandhara,¹⁰ sheath at Kandahar (Scheibe, *loc. cit.*, fig. 36, 1).

³⁶ For side control seen in a wider ethnological connexion see B. Bratanić, in *Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences*, Philadelphia, 1956, p. 222.

³⁷ A. Steensberg, 'Parallel Ploughing with Alternately Sloping and Upright Ard in Columella,' *Folk-Liv.*, 1957-58, pp. 157-162.

SHORTER NOTES

A Bead Factory in Amsterdam in the Seventeenth Century.

By Dr. W. G. N. van der Sleen, Naarden, Holland.
With three text figures

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In April, 1960, Mr. Ypey of the Rijksdienst voor Oudheidkundig Bodemonderzoek handed me a few distorted beads and some small coloured glass tubes, found in newly ploughed fields near Naarden-Bussum, a small town half-an-hour by car east of Amsterdam. Following this lead, I soon found out that several fields in that neighbourhood were littered with potsherds, pipestems, bits of Chinese Ming porcelain and Japanese Imari, and many very small pipebowls—in other words, material such as is found in the refuse and ashheaps of a rich, large city. Many pipebowls were datable to the first quarter of the seven-

teenth century, several sherds of waterjugs in blue German stoneware carried inscriptions of 1626, 1630, 1644, etc., and pieces of Delft majolica bore dates such as 1630. Lastly, there were dozens of well preserved glass beads and small tubes such as are used in bead manufacture.

Further investigation brought most interesting results: (1) that all around Amsterdam and other towns refuse, ash and sewage had been used as manure in the seventeenth century (Wagenaar, 1765); (2) that many fields around Amsterdam contained hundreds of glass beads and other refuse of a glass factory; (3) that a glass factory 'à la façon de Venise' had existed in Amsterdam from 1608 till about 1680, where for a long time 80 households worked at the manufacture of beads (Hudig, 1923); (4) that one of the

directors of the famous V.O.C., the East India Company, had brought hundreds of shiploads of sand to Amsterdam from the sandhills around Bussum for the strengthening of building sites and roads. On the barren sandy ground at Bussum they built their summer houses and castles after first manuring the soil with the refuse of Amsterdam, brought in by the empty sand barges as they returned for more sand (Archives of 's Graveland); (5) that workers from Murano and Venice had been tempted from their posts as foremen in the Venetian glass industry and had been paid to teach the Dutch artisans in Holland to make glass and beads (Archives of Amsterdam, 1613); (6) that the Amsterdam beads have the same pattern and forms and colours as the Venetian ones, but happily with a difference! It seems that the supply of soda was at that time very short in Holland, but potash was plentiful in the peat-and-wood-burning towns and factories. This explains why many Amsterdam beads contain as alkali up to 23 per cent K_2O and sometimes only traces of Na_2O , while most Venetian and Egyptian beads and even many Indian specimens nearly always contain a high percentage of Na_2O and much less K_2O (Tornati and van der Sleen, 1960).



FIG. 1. SEVENTEENTH-CENTURY BEADS FROM A GLASS FACTORY IN AMSTERDAM, COLLECTED NEAR NAARDEN-BUSSUM

The study of the Amsterdam beads shows again how very careful we must be in judging and dating beads. A few years ago I received a good lot of beads, collected by priests on the Indonesian island of Flores, mostly from tombs! Some specimens I was able to name and recognize instantly, as I had seen their counterparts in H. C. Beck's classification (Beck, 1928), especially three well-known kinds of beads. First, there was the twisted square bead (Beck, p. 17, A4), secondly the mulberry bead (Beck, p. 27, A3b) and thirdly the chevron or rosetta beads (Beck, p. 65, fig. 66). The text with these three beads reads 'Egypt, Roman Period.' Now of course I cannot say that these beads were not made in Egypt in the Roman Period. So I corresponded about them with Sir Mortimer Wheeler, thinking of a second Arikamedu, but much farther away to the east. And now—I was able to prove to myself that all these beads from Indonesia were made in Amsterdam in the seventeenth century and probably brought to Flores by the ships of the East India Company, the famous V.O.C.

I may give another example of how wrongly beads are sometimes judged. In MAN, 1905, 1, Sir Hercules Read gave a description of 'A Necklace of Glass Beads from West Africa.' He compared it with types from Greek tombs and came to the following conclusion: 'Glass beads of classical style found for the first time in West Africa, and presenting features that in point of date may justifiably be associated with the name and time of the Carthaginian Hanno' (600 B.C.). As Read gave a full-page and

almost full-size picture of the necklace and a good description as well, I am able to be quite sure that except for the numerous ostrich-eggshell beads, all the other beads were made in the Amsterdam factory!



FIG. 2. BEADS FROM THE AMSTERDAM GLASS FACTORY, COLLECTED AROUND AMSTERDAM

Now a new task awaits me, viz. to find out when and where the Amsterdam beads were sent for barter. I know them already from Indonesia (Java, Bali, Flores), from Africa (Pretoria, Durban, Madagascar, Gold Coast, etc.). They were brought to Easter Island, to the Antilles (St. Eustatius), and most probably to Canada and America. One of the largest and most easily recognizable bead is a blue or white pentagonal cylinder of nearly an inch long and half as wide. Another well-known bead is the twisted square bead, which I would prefer to call the pentagon bead as the surface is divided into eight pentagons. The Amsterdam chevron beads are of large and small sizes, but the larger ones in particular lack the beautiful finish of the modern specimens. It is well known that these beautiful, intricate beads are still made in Venice in great quantities and in all sizes and varieties.

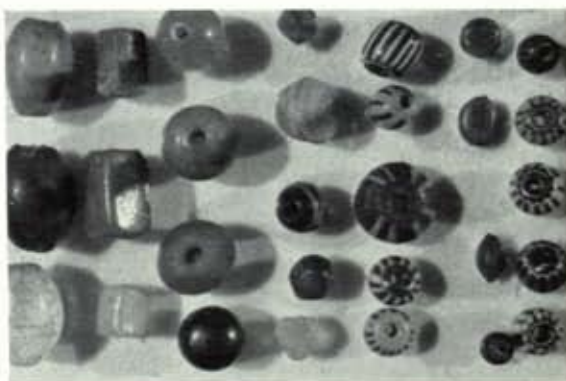


FIG. 3. BEADS FROM THE AMSTERDAM FACTORY

Reading from left to right: second row, pentagonal cylinders in blue and white; fourth row, four pentagonal beads and one ornamented bead; two right-hand rows, small chevron or rosetta beads

More information on this subject is given in the Report on the Archaeological Congress in Amersfoort, Netherlands, held on 2 and 3 January, 1961. A very good colour picture of a large collection of Amsterdam beads appeared in the Dutch weekly *Panorama* on 11 March, 1961, which is available on request to me at Flevolaan 48, Naarden, Netherlands.

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A Note on Some Spears from Bornu, Northern Nigeria.

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By A. H. M. Kirk-Greene, *Institute of Administration, Zaria, Northern Nigeria. With three text figures*

The Resident's Library in Maiduguri, Bornu Province, despite certain depredations about which the less said the better,¹ at one time boasted a very fine collection of Nigeriana; with eminent Nigerians like Vischer, Hewby, Palmer, Lethem and Patterson working in the Province in its first 30 years, it could hardly fail to be richly appointed. While I was working as a District Officer in Bornu a few years ago, it occurred to me that we might be able to transfer some of the more precious archives from the danger zone of the Records Office, where there was a distressingly growing list of 'files destroyed by white ants' entered on the card index, to the comparative safety of the Library. Among the papers that we managed to salvage was a collection of notes on the spears extant in Bornu c. 1925-1930, accompanied by a number of attractive sketches. Regrettably, I was unable to bring all these notes up to date in the field before I left Bornu, but I was able to make some investigation of the weapons used by the Bornu army a century ago. Subsequent

library research has now encouraged me to edit and expand the memorandum and, with the permission of one of the original contributors,² to reproduce the original sketches in the belief that they deserve to be made available to a wider audience than has heretofore been possible and that this paper may represent a helpful starting point for further inquiries on Northern Nigerian spears.³

The late nineteen-twenties was the period when Government Anthropological Officers were active in Nigeria. One of the topics on which research had been undertaken in the Southern Provinces was the spear cult, particularly in the Onitsha and Owerri Provinces. Memoranda were submitted and analysed by the Government Anthropologist—memorable is his castigation of some of the *soi-disant* spears produced for his inspection, 'roughly fashioned from eighteenth-century bayonets—no doubt a result of barter trade with European traders who probably got them cheaply from a Disposals' Board after the Napoleonic wars and initiated a temporary fashion in juju spears.'⁴ When the report was passed to that great Bornu figure, the late Sir Richmond Palmer, who was then Lieutenant-Governor of the Northern Provinces, he at once thought of Bornu where, to quote His Honour's minute, 'the spear is *par excellence* the symbol not only of sovereignty but of nobility among all the Berber races.' Meek,⁵ in noting earlier that the spear was the characteristic weapon of Africa, had pointed out that the Shuwa and Kanuri of Bornu used the spear exclusively. Tradition still tells in Bornu how the original Sef dynasty had fought with swords, while the Magumi dynasty was distinguished by its spears.⁶ The spear, as is to be expected, features prominently in Kanuri poetry, in such similes as *kiriyeñmentu kasaga bulbe* ('your generosity is a polished

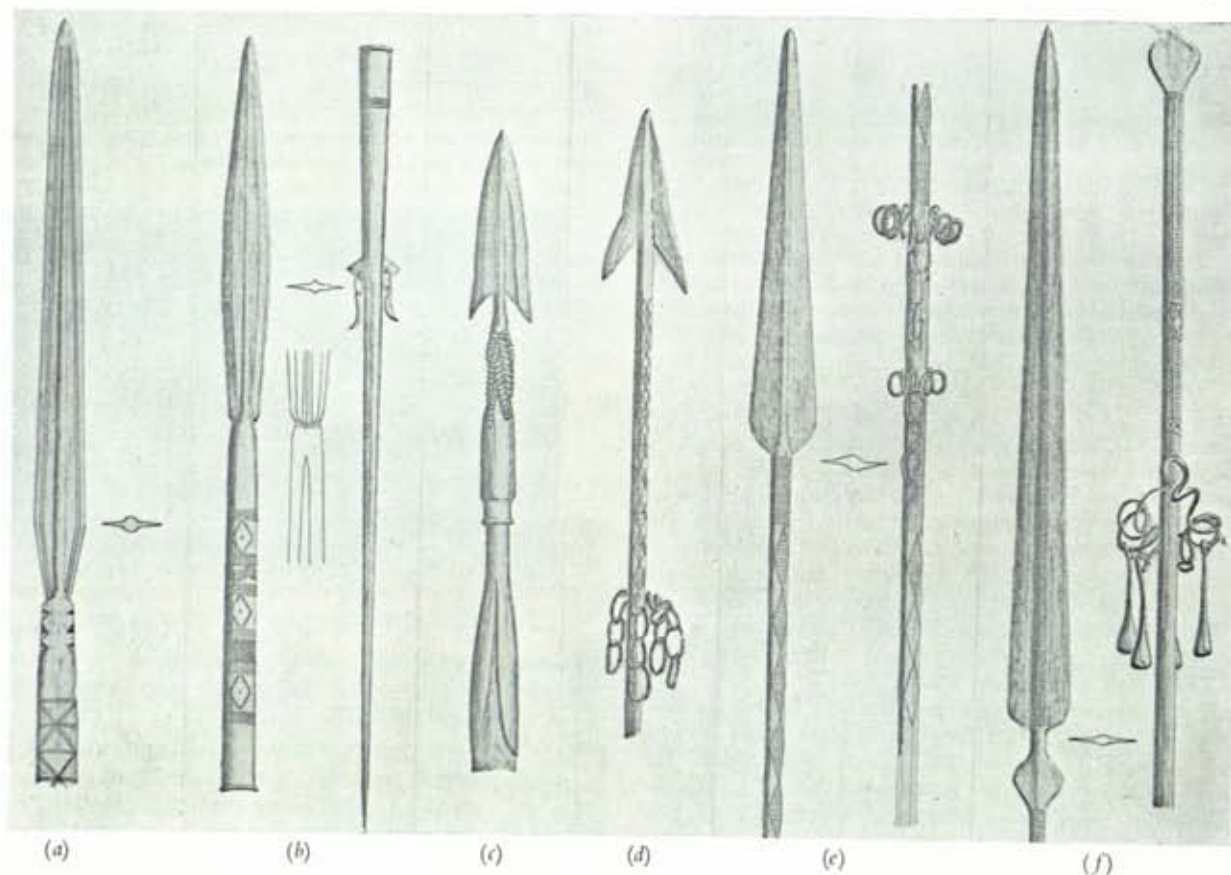


FIG. 1. BABUR SPEARS FROM BIU DIVISION, NORTHERN NIGERIA

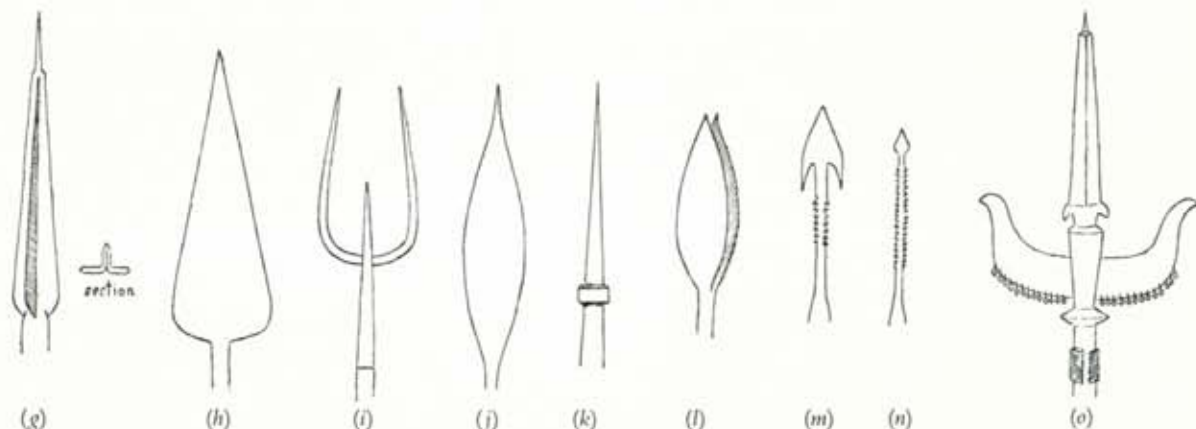


FIG. 2. SPEARS FROM DIKWA DIVISION, NORTHERN NIGERIA

spear') or *shimze, boyo* ('his eye the spear of an elephant-hunter' and therefore to be feared).⁷

The following principal Babur⁸ spears from Biu Division (fig. 1) were kept in the armoury of the Emir of Biu. A MS note made at the time suggested that they were made by the *cire perdue* method.

(a) *Narra*, a minor spear, said to be of little hierarchical significance and carried in the nature of a substitute staff of office on ordinary days. It has two parallel lines along each side of the blade and stands fully seven feet. The haft, which is of undecorated wood, is socketed into the head and held by three rivets. In Northern Nigeria the socketed spear is common.

(b) The male *Rum*. This is a generic term for the most important spears of the Babur. Four of them are regarded as male (the fifth is female (c)) and resemble one another in design and decoration. The male *Rum* spears are believed to have been brought from Mandara, in the east, by Yamta ra Wala, the conqueror of Biu. They have a number of ceremonial uses. The ornamentation is incised and the whole weapon is made in three separate pieces, head, haft and butt.

(c) The fifth *Rum*, the female one, is emphatically the *tsafi* (fetish), regarded with awe and referred to with reluctance. The spear in this sketch was the one produced ostensibly as the female *Rum*, but other sources indicated that this was, in fact, only a substitute spear. The real one, brought out only in times of calamity and even then not in public, is said to resemble the female *Arim* of Shani (d). Tradition relates that when Yamta ra Wala was invading Biu he was several times repulsed at Miringa by a spear which sprung miraculously from the ground. Uncertain how to overcome this obstacle, Yamta ra Wala turned himself into a handsome youth and seduced the daughter of the chief of Miringa. She revealed the truth to him, and once possessed of the secret of the spear Yamta ra Wala had no difficulty in overrunning the whole of Biu.⁹ On the spear in this sketch the neck has been divided lengthways just below the head and the resultant strips twisted to give them the appearance of cords. These pass through a hole in a brass mounting, which in turn is firmly screwed into a second iron socket that joins the whole to a wooden shaft.

The Kanakuru¹⁰ and allied tribes of Shani and Tera also have their own *Rum* spear. It is believed to have been brought from the Yemen by the first chief of Boti, the tribe which subsequently ramified into Shani and Tera.

(d) The female *Arim*. This was carried as a standard only in the direct conflicts. It is forged from one piece of iron.

(e, f) The male *Arim*. These were carried in lesser battles, again in the role of a standard rather than as a weapon. The shaft is hexagonal and the ornamentation neatly incised and regular. The butt ends in a spike.

Many of the Biu tribes possessed a second ceremonial spear, known as *Zelaim*. Its main use was for public presentation to a man who had distinguished himself, for example a hunter who had

killed an elephant or a farmer who had harvested a thousand bundles of corn. It has a leaf-shaped blade between 12 and 18 inches long, socketed to a wooden haft, and has a central boss. It is said to resemble the Zulu stabbing assegai.

It was in Gabai, between Gujba and Biu, that the chief of the Ngassar showed Olive Macleod a spear with a four-headed blade.¹¹ To turn to the spears of Dikwa Division (fig. 2):

(g) A three-bladed spear, also known as *Rum*. It was carried by the *kokona* or holders of the old Maghumi offices in Bornu, i.e. the patricians of Birni Ngazargamu as distinct from the new Kanuri aristocracy of Kukawa. It was claimed in 1925 that the owners of these spears possessed the very same weapons that their ancestors had carried in Birni, for none had been made since the Fulani sacked the city in 1809. Tradition adds that the *Mai* (king) himself carried only a sword and a rosary, but this was not confirmed by Denham.

A three-bladed spear is known among the Fulani sultans of Darfur.¹²

(h) This is a Wadaian spear. Spears of this type were sent by the sultans of Wadai to the Shehus of Kukawa, especially during the intrigues and alliances between 1835 and 1846. After his invasion of Bornu in 1893, Rabeh is credited with having confined this type of spear to his own family and his favourites. On his death, it lost its importance, but its heavy blade kept it a popular weapon among elephant-hunters.

(i) *Mamanengi*, another relic of Birni Ngazargamu, carried only by the *kokona*. The trident alone is an unusual form of Bornu spear, but a spear mounted by a trident was borne as a badge of office by the principal nobles of pre-1809 Bornu.¹³

(j) A typical Shuwa Arab spear. Its heavy blade ensured it a place among the weapons carried by Shehu Lamino's celebrated Arab cavalry of the mid-nineteenth century. On the Musgu expedition of 1852 it was reckoned that the army included 8,000 Shuwa horsemen, with a further 4,500 Kanuri light cavalry and 500 heavy cavalry.¹⁴ Military spears were either throwing (light, with an arrow-shaped head and bamboo shaft) or thrusting (heavy, with a blade-shaped head and metal shaft). Barth relates¹⁵ how the Shuwa cavalry carried one heavy spear and four throwing spears, which he refers to as 'javelins'; very few carried shields.

(k) Its Kanuri name, *kokab sulbe*, or *kokab al dur* in Shuwa, means 'the chain-armour spear.'

(l) This double-bladed spear, also useful to penetrate chain mail, is similar to that carried by the lancers of the sultan of Baghirmi and so beautifully reproduced in Finden's engraving (fig. 3).¹⁶

(m, n) These are both typical of the spears carried by the famous Kanembu spearmen of Shehu Lamino's army. The first sketch is of the spear known as *Marja* and the other of the *Shettina Lamino*, called after a distinguished Kanembu warrior. Their length was about six feet. Barth describes these brave spearmen, 'almost naked, with their large wooden shields, their half-torn aprons round their loins, their barbarous headdresses and their bundles of spears,'¹⁷ as the backbone of the Bornu infantry force on its campaigns.

They were drawn from the pastoralists round the shores of Lake

Chad, their Kanembu ranks reinforced on major razzias by Mobber and Bedde men. In return for their services in war, the Kanembu were granted farms on Chad's edge, excused all religious observances during the fighting, and exempted from all taxation except the *wala*, a levy in cash and kind collected every five or seven years; and even this they paid only if no fighting had taken place during the intervening years since the last levy. They were armed with a shield (*ngaya*), a broad-bladed stabbing-spear (*kashaga ya kura*) and a handful of throwing spears (*dargo, tenene*). The shield was made of the *fogo* wood, a tree found on the shores and islands of Lake Chad and valued for its lightness. On active service the spearmen wore only a loincloth and a remarkable headdress designed to enhance the ferocity of their appearance. Barth gives an excellent description: 'The original headdress of the Sugurti, a Kanembu clan, consists of four different articles: first, the *joka* or cap, rather stiff, and widening at the top, where the second article, the *ariyabu*, is tied round it; from the midst of the folds of the *ariyabu*, just over the front of the head, the *mullefu* stands forth, a piece of red cloth, stiffened, as it seems, by a piece of leather from behind; and all



FIG. 3. LANCER OF THE SULTAN OF BAGHIRMI

After Finden in Clapperton and Denham, 1826

round the crown of the head a bristling crown of reeds rises with barbaric majesty to a height of about eight inches. Round his neck he wears a tight string of beads or *kululu*, and hanging down upon the breast several small leather pockets containing written charms, while his right arm is ornamented with three rings: one on the upper arm called *wiwi*, one made of ivory and called *chila*, above the elbow and another, called *kullo*, just above the wrist. The shields of the Sugurti are broad at the top as well as at the base, and besides his large spear or *kasaka* he is always armed with three or four javelins.¹⁵ Finden has again left us an excellent sketch of the Kanembu spearmen.¹⁶

(o) This is not strictly within the limits of the paper, but its novelty and mystery may be held to earn it a mention. This sketch is a copy of a standard said to have been presented to Shehu Lamino by the Sultan of Turkey. The original was captured in the sack of Kukawa by Rabeh in 1893. I have so far been unable to discover

any substantial documentary evidence of this embassy, which would have had to have taken place between 1810 and 1835, though there is a record of an earlier Turkish embassy to Bornu at the end of the sixteenth century.¹⁷ Further information on this standard would be welcomed.

Notes

¹ What, for instance, became of the geometry book inscribed 'Walter Oudney, M.D., Surgeon R.N. and H. B. M.'s Col. at Bornou,' presented to the Provincial Library by Hanns Vischer in 1906 (P. A. Benton, *The Sultanate of Bornu*, 1913, footnote p. 346)?

² Mr. P. A. Tegetmeier, who still maintains an interest in Bornu affairs from his penthouse office at the Colonial Office.

³ Other spears of Northern Nigeria worthy of study include the Atsoshi spear of authority at Wukari, the *Disakuma* talismanic spears of the Chamba, the Shamaki spear of the Kare-Kare, the magic war spear of the Kam of Muri, the twin spears of the Jombor rites of Fika; and the multiple spear of the Nzeanza cult in Numan Division, illustrated in Meek's *Tribal Studies in Northern Nigeria*, Vol. I, p. 30, and described in A. H. M. Kirk-Greene, 'Faree Festival,' *Nigeria*, No. 45, 1954. Otherwise, description of Nigerian spears is scant. In general, reference should be made to W. Schilde's article in *Zeitschrift für Ethnologie*, 1929; K. G. Lindblom's contribution to *Essays Presented to C. G. Seligman*, 1934; and his monograph No. 14 in the Ethnographical Museum of Sweden Series, *Spears and Staffs with Two or More Points in Africa*, 1937.

⁴ Manuscript note.

⁵ C. K. Meek, *The Northern Tribes of Nigeria*, 1925, Vol. I, p. 306.

⁶ Cf. H. R. Palmer, *Bornu Sahara and Sudan*, 1936, p. 141.

⁷ Some good examples are to be found in J. R. Patterson, *Kanuri Songs*, Lagos, 1926.

⁸ For the Babur (Pabir), see C. K. Meek, *Tribal Studies in Northern Nigeria*, 1931, Vol. I, chapter III.

⁹ J. G. Davies, *The Bui Book*, privately printed, Zaria, 1957.

¹⁰ For the Kanakuru, see Meek, *op. cit.*, 1931, Vol. II, chapter XIII.

¹¹ O. Macleod, *Chiefs and Cities of Central Africa*, p. 254. It is interesting to note that Lindblom thought that Miss Macleod was a man: see *Spears and Staffs with Two or More Points in Africa*, 1937, p. 15. This would have distressed Mr. Temple!

¹² Illustrated in Lindblom, *op. cit.*, 1934, fig. 16.

¹³ H. R. Palmer, 'Trident Sceptres from West Africa,' *MAN*, 1932, 47. Further memoranda are to be found in *MAN*, 1929, 47; 1930 and 1931, 44.

¹⁴ H. Barth, *Travels and Discoveries in North and Central Africa*, 1857-1858, Appendix entitled 'Account of the Various Detachments of Cavalry Composing the Bornu Army in the Expedition to Musgu.' In view of the differences in the English, German, French and American editions of Barth's work, I have quoted here the title of the Appendix instead of its number; similarly, in the notes below I have quoted the date of the entry in his journal instead of the volume and page number, for ease of reference.

¹⁵ Barth, *op. cit.*, 7 January, 1852.

¹⁶ Plate No. XXXI, 'Lancers (sic) of the Sultan of Begharmi,' in *Narrative of the Travels and Discoveries in Northern and Central Africa*, 1822-24, by Captain H. Clapperton and Major D. Denham, 1826.

¹⁷ Barth, *op. cit.*, 19 December, 1851.

¹⁸ Barth, *op. cit.*, 20 April, 1851.

¹⁹ Clapperton and Denham, *op. cit.*, Plate No. XX, 'Kanembu Spearman—Munga Bowman.'

²⁰ *Sudanese Memoirs*, edited by H. R. Palmer, Vol. I, pp. 69, 76.

The Date of the Kalomo Skeleton, Northern Rhodesia. By

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Ever since its discovery in 1925, the so-called Kalomo skeleton from Northern Rhodesia has excited the interest of physical anthropologists. This is primarily because of its alleged robust, Pre-Negro features.¹ Gear² and Galloway³ suggested, indeed, that it had Boskopoid features.

Although the skeleton has, quite correctly, been assigned to the Iron Age, no attempts to date it more precisely have been made until recently, as the Iron Age sequence of the Southern Province of the territory was almost unknown.

Gear⁴ stated that the bones were recovered by a Major Trevor from a prospecting trench dug in soil derived from disintegrated granitic schist. The bones were found at a depth of about three feet, together with fragments of 'a fair sized pot not large enough to cover the head.' No evidence of body position was recovered. Major Trevor's notes also observed that: '200 yards further to the north another prospecting trench cuts through some eight feet of made ground and humus, which clearly indicates the remains of an old kraal of considerable size and antiquity.'

In 1961, I visited the site of the discovery on Mr. F. Horton's farm near Chileshe siding, during the course of the Kalomo/Choma Iron Age Project, in an attempt to date the burial more closely. With the aid of information kindly supplied by Mrs. E. Horton, it was possible to identify the actual place where the burial was found. As Gear recorded, the body was deposited in a shallow grave dug into the granitic subsoil. There were no signs of human occupation in the immediate vicinity of the burial site, but it is quite clear that Gear and Trevor's reference to made ground and humus refers to a medium-sized Kalomo-culture mound village about 200 yards north of the grave.

Unfortunately, the fragmentary pot which was found with the skeleton is not preserved with the bones in the collections of the Medical School at Johannesburg. We are therefore unable to date the burial by its associated grave goods and must rely on indirect dating evidence.

From excavations at the Isamu Pati and Kalundu mounds⁵ we know that the Kalomo-culture people buried their dead within the precincts of their villages. We cannot say whether this was a general rule, but perhaps it is significant that no isolated Kalomo-culture burials have yet been found after over five years' research in the area.

On the other hand, isolated Ancestral and modern Tonga burials are not uncommon; skeletons have been recovered from a number of sites in the district.

The implications are that this burial belongs to the last few centuries of the Iron Age, rather than to the Kalomo culture or some other early group. It is, however, impossible to date the skeleton more closely in the absence of the grave goods.

Obviously a primary requirement when studying human skeletal remains from archaeological contexts is that the material concerned should be securely dated. The Kalomo skeleton is not, and must therefore be excluded from serious consideration as a historical specimen, however unusual its anatomical features.

Our recent fieldwork in the Kalomo district has yielded more accurately dated samples of the Iron Age populations of the Southern Province, which are currently being studied by Professor P. V. Tobias, Mrs. H. L. A. de Villiers and Mr. Adrian Martin of the Medical School, University of the Witwatersrand.

I am grateful to Professor Tobias for help with this investigation, and to Mrs. E. Horton and Mr. F. Horton for their assistance in the field. The Kalomo/Choma Iron Age Project has been supported by the Nuffield Foundation.

Notes

¹ R. A. Dart, 'The Physical Characteristics of the /?Auni-Khomani Bushmen,' *Bantu Studies*, Vol. XI (1937), pp. 176-246; L. H. Wells, 'Fossil Man in Northern Rhodesia,' in J. D. Clark, *The Stone Age Cultures of Northern Rhodesia*, Capetown (1950), pp. 143-50.

² H. S. Gear, 'A Boskopoid Skeleton from Kalomo, Northern Rhodesia,' *Bantu Studies*, Vol. II (1926), pp. 217-31.

³ A. Galloway, 'The Skeletal Remains of Mapungubwe,' in L. Fouché, *Mapungubwe*, Cambridge (1937), pp. 127-74.

⁴ H. S. Gear, *op. cit.* (1926), p. 217.

⁵ B. M. Fagan, 'The Kalomo/Choma Iron Age Project (1960-63): Preliminary Report,' *S. Afr. Archaeol. Bull.*, Vol. XVIII, No. 69 (1963), in the press.

222 A Suggested Case of Evolution by Sexual Selection in Primates. By Clifford J. Jolly, Department of Anthropology, University College, London. With a text figure

As Darwin (1889) placed so much emphasis upon sexual selection as a mechanism for the evolution of the secondary sexual characters and racial differences of man, an anthropological journal seems an appropriate place to draw attention to new evidence which may be interpreted as indicating similar evolutionary mechanisms acting upon other Primates. The animals concerned in this case are baboons of the genus *Papio*. A full revision of the taxonomy of this genus is in preparation, but for present purposes it is sufficient to remark that the genus may be divided into two species groups: (1) The hamadryas group, including only the species *P. hamadryas*, found in Abyssinia, parts of the Sudan and Southern Arabia, and (2) the cynocephalus group, which includes all the other forms widely distributed throughout Sub-Saharan Africa (see fig. 1).

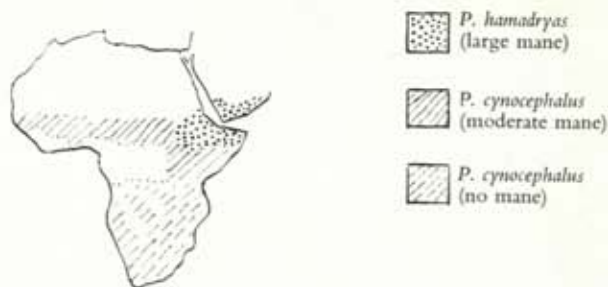


FIG. 1. DISTRIBUTION OF *PAPIO* IN AFRICA

The hamadryas baboon is distinguished from other species both by certain cranial details and, in the adult male, by a copious mane which covers the fore part of the body, springing from the shoulders, chest and cheeks. The mane is further emphasized by its lighter colour, and by the relative shortness of the hair on the hindpart of the back. The female has only a slight mane and the fur is uniformly drab-coloured. The possession of this mane led some authors to place the hamadryas in a separate genus, *Comopithecus*. A mane in a similar position over the shoulders is developed by adults of all the more northern forms of baboon of the cynocephalus group (*P. papio*, *P. anubis*, etc.), especially the males. But in this case the mane is much shorter, is not contrasting in colour, and is not thrown into relief by very short fur on the hindback.

Recent research into the natural history and social organization of baboons of both species groups by Hall (1962), Kummer (1962), Stark and Frick (1958), and Washburn and Devore (1961), has made it possible to interpret this physical difference in terms of their behaviour.

Cynocephalus-group baboons, which have been observed in South Africa (*P. ursinus ursinus*), Rhodesia (*P. ursinus griseipes*), Kenya (*P. cynocephalus cynocephalus* and *P. anubis*) and Abyssinia (*P. anubis*), live in permanent groups which vary in size from about ten to 200 individuals. These always apparently sleep together in the same group of trees or on the same rocks, and

spend the day foraging in a widely spread group, within which, however, individuals remain in communication. Within the troop, females coming into oestrus mate with one or more of the adult males; short-term attachments may be formed, but males do not seize and hold females against other males.

The social organization of the hamadryas, as reported by Stark and Frick and by Kummer, differs from this. The animals forage by day in small separate groups consisting of a single male, which is dominant, several females and their young, with perhaps a few 'peripheral' males. At night these foraging parties amalgamate into much larger groups which sleep together on a particular cliff. These aggregations are often much larger than the troops of the cynocephalus-group baboons, and within them the one-male groups remain spatially separate, sleeping on different ledges. Thus recent field studies have confirmed the early work of Zuckerman, who described harem-formation in captive hamadryas.

The reason, if any, for the distinctive social organization of the hamadryas is not known, but it may be that their smaller foraging groups are more efficient at exploiting their particular environment, which is more arid than that of most cynocephalus-group baboons.

It will be seen that, owing to the social structure of their troops, cynocephalus-group males will have the chance of mating with all the females as they come into oestrus, whereas the hamadryas male will be able to mate only with those females which he is able to attract into, and hold within, his own harem. Any physical feature which enables him to do this more effectively will thus be strongly favoured by natural selection, and, if it is acting as a signal of the 'competitive' or 'advertisement' type (Maynard Smith, 1962), would tend to become more conspicuous and exaggerated. There is reason to believe that the mane is such a feature.

Many authors (e.g. Reynolds, 1962, Zuckerman, 1932, Bolwig, 1959) have commented upon the role that the fur plays in monkey social behaviour, providing a strong attractive stimulus which finds social expression in the mother-infant relationship and in 'grooming relationships' between adults. In the latter, a female is usually the active partner. It would therefore be reasonable to expect that a development of the 'grooming relationship' would be one of the bonds holding the hamadryas harem together, and that males with large, conspicuous and therefore attractive manes would, in the long run, be more successful in attracting and holding females, and thus be favoured by a classic form of sexual selection. In fact, as clearly emerges from a study made by Kummer in Zürich zoo, the function of the fur in the hamadryas baboon has become formalized and emphasized, so that not only do the females spend much of their time grooming their overlord's white mantle, but subordinate males express their subordination by gazing at the mane of the dominant male.

If this suggested correlation between the physical and behavioural differences between cynocephalus-group and hamadryas baboons is accepted, the moderately developed mane of the northern forms of the cynocephalus group must have a different function from the hypertrophied structure of the hamadryas. Possibly further comparative ethological work will throw some light on this problem.

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The Sebei 'Prophets.' By J. M. Weatherby. With a table

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There is an article in MAN, 1935, 24, by G. W. B. Huntingford, which gives the genealogy of the Nandi *Orkoik*.¹ He explains that this tradition of *Orkoik* among the Nandi was not one of long standing, having begun with the acceptance into the Talai clan of the Nandi, of an *emigré Laibon* from the Uasin Gishu Masai. This took place after the defeat of that tribe sometime in the middle of the nineteenth century. He also states in his work *The Nandi of Kenya*, p. 38, that there is a complete absence in other tribes of the Nandi group of any personage like the *Orkoik* and that he is only to be found among the Kipsigis.

Recently much information has come to light about the Sebei-speaking peoples of Mount Elgon, whose language is closely akin to Nandi. It appears that the Sebei and Gondjek had a series of important prophets of their own tribe certainly throughout the nineteenth century and most probably before.

Huntingford states in his *Nandi Work and Culture*, paragraph 23, that according to tradition 'the history of the Nandi proper begins with the settlement of a man from the "Kony" of Elgon named Kakipoch of the Kipoiis Clan, on the top of the escarpment in the extreme S.W. of what is now Nandi. This may have been about the beginning of the seventeenth century.' This story of the Nandi springing from the Elgon peoples is supported by the Sebei's legendary account of their origin in which their ancestor Masobo had several children amongst whom were Nondiin, Kipsigisin and other well-known names of the Kalenjin tribes. Of these Nondiin, Kipsigisin and others wandered east of the mountain, while the offspring of another son of Masobo, called Sabaut, who were Sabinyin, Kongin, Kupok and Kubongom, all remained on the mountain. That the Nandi are an offshoot of the Sebei-speakers of Elgon is in fact generally accepted, that is to say they are an offshoot of a people who had prophets, *Worrgoik*, among them since time immemorial.

Huntingford mentions in his *Nandi of Kenya* that male members of the Kamwaik clan were called *Orkoik* prior to the acceptance of the Masai *Laibon* by the Nandi. In the light of recent research on the Sebei *Worrgoik*, it would seem that their function had already been much the same as that of the Masai *Laibon*.²

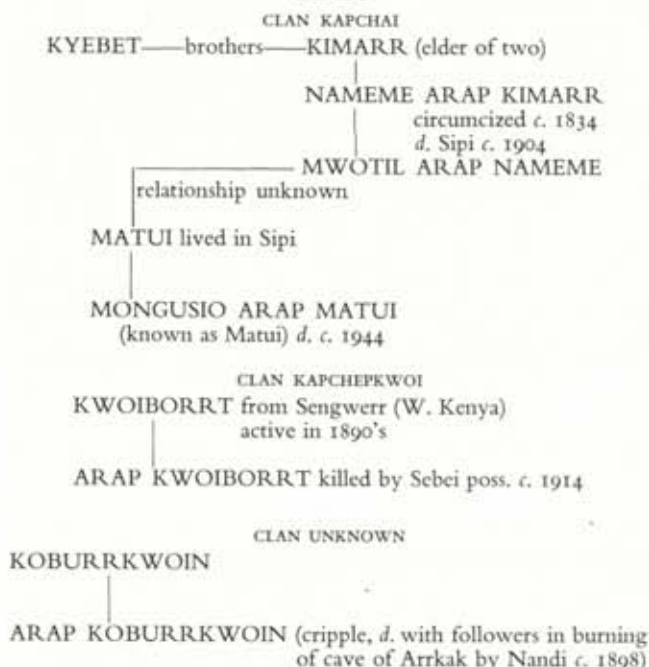
In *Nandi Work and Culture*, p. 13, paragraph 27, Huntingford says: 'The Uasin Gishu Laibon Kapuso was given shelter by the Nandi. What their motive was we do not know, it may have been a gesture of misplaced generosity to a beaten foe—since Nandi undoubtedly rejoiced at their destruction of the Uasin Gishu Masai.' Might not the reason for the acceptance of a *Laibon* from the defeated Masai have been that the Nandi welcomed a prophet of this kind into their midst, since it had been an ancient and traditional practice among the Sebei-speaking stock, from which they originally sprang, to make use of these experts?

In *Nandi Work and Culture* Huntingford gives a genealogy of

'Headmen' of the 'Kony,' a group of Sebei-speakers known by the Sabindjek (Sebei) and themselves as Gondjek. He quotes the Gondjek as saying of their one-time leader Kieptek (active about 1820) that he was a powerful witch who helped the Uasin Gishu Masai (in Sebei Kipkwop or Ipkwop) to drive out and destroy the Sirikwa. There is every reason to believe that Kieptek was a *Worrgoiyot* (prophet) of the Gondjek, as were his son Sangula I and Sangula II (probably a great-grandson of the foregoing).³

Table I gives the genealogies of three lines of Sebei prophets with approximate datings based on the age-set cycle of the Sebei, which, like that of the Nandi, worked on 15-year intervals between the start of one circumcision and the start of the next.⁴

TABLE I



The Sebei *Worrgoiyot* was a seer who foretold events of the future by dreams and other premonitions. He was much feared by the community and consulted by them on various matters to do with their welfare. The people refrained from using his title in conversation, believing that he could always know what they were saying about him. He differed from the diviner *Kyepsogoy-andet* (pl. *Kyepsogoyisiek*) and from the sorcerer *Bonin* (pl. *Bonik*) in that he did not work magic by using spells, *banek*.

The *Worrgoiyot* only used words and by his words he could cause madness in others or send animals to destroy property or cause lightning to kill people. In times of famine he could predict the position of game, and in wartime he predicted the time and direction from which a raid was coming. There is also a well-known case of the prophet having foretold the whereabouts of Karamojong cattle and having organized and directed the raid

accordingly. Large numbers of cattle were stolen, but the Sebei suffered defeat.

In time of war or danger it was the leader, *Kirwogin*, of the particular district, *Bororiet*, who decided what should be asked of the *Worrgoiyot*. On ceremonial occasions the *Worrgoiyot* wore a leopard skin. He took no part in the fighting and remained by himself until the outcome was announced to him. Before an attack by the warriors, the leader *Kandoindet* (pl. *Kandoisiek*), was sometimes given a club, *rongut*, by the *Worrgoiyot*; the *setanik* or medicine was tied to this or placed in a bored hole.

The crippled prophet Arap Koburkwoin is famous among the Sebei for having prophesied, among other events, the coming of the Europeans and Baganda and the eventual peace from tribal warfare.

Notes

¹ The word *Worrgoiyot* (Sebei) or *Orkoiyot* (Nandi) has been translated as 'Prophet' throughout this paper, for want of better, since this word describes as nearly as possible the chief function of the *Worrgoiyot* among the Sebei in the past.

² After the acceptance of Kapuso by the Nandi and the defeat of the Uasin Gishu Masai, the Nandi *Orkoit* (ex-*Laibon*) began a period of intensive political activity involving a stepped-up offensive against the Sebei of Elgon.

³ Sangula I was burnt in a cave with his followers by the Nandi during a raid in about 1879 or 1880, when Turukat was *Orkoit* of the Nandi.

⁴ This held good only until 1924 when a change took place and the old system was abandoned.

XXVI International Congress of Orientalists, New Delhi, January, 1964

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The XXVI Session of the International Congress of Orientalists is to be held at New Delhi, 4-10 January, 1964. Professor Humayun Kabir is Chairman and Shri A. K. Gosh and Professor R. N. Dandekar Secretaries of the Organizing Committee. There are 10 principal sections: Egyptology, Semitic Studies, Hittite and Caucasian Studies, Altaic Studies including Turcology, Iranian Studies, Indology, South-East Asian Studies, East Asian Studies, Islamic Studies and African Studies. The Secretariat is in care of the Ministry of Scientific Research and Cultural Affairs, New Delhi.

Horniman Museum Lectures, Autumn, 1963

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Among the free illustrated lectures of interest to anthropologists to be given at the Horniman Museum, Forest Hill, London, S.E. 23, at 3.30 p.m. on Saturdays during November and December are the following: 9 November, Professor C. von Furer-Haimendorf, 'Tribes of India's North-East Frontier Agency'; 16 November, Dr. E. A. Alport, 'Mediaeval Cities in the Sahara'; 23 November, Dr. B. Danielsson, 'The Islands of the South Seas in the Modern World'; 30 November, R. Clausen, 'Some Aspects of Music and Life Today in Malekula, New Hebrides'; 7 December, Dr. G. H. S. Bushnell, 'Pre-Columbian Mexican Art'; 14 December, Dr. P. H. Gulliver, 'Village Life in East Africa.'

CORRESPONDENCE

Deriving Cents Almost without Maths

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SIR,—I am no mathematician and my mind goes blank when confronted with pages of figures on how to convert intervals to cents. I do not know what I do mathematically in the following examples; I only know the mechanical actions and the results that follow. It seems worth publishing

the system for the benefit of those of my colleagues who are similarly afflicted.

The only tool used is a slide rule, which must have a log-log scale; on mine it is marked lgX and is on the back of the slider.

It is always best to start with a known answer, so let us assume pitches of 220 vib. and 440 vib. Provided one treats both halves of

the problem in the same way, one ignores noughts and decimal points on a slide rule; if one goes wrong the answer is so impossible that the error is obvious. Find 44 on the scale below the slider, usually marked D at the left hand end. Place above it 22 on the scale on the lower edge of the slider, which is marked C. Look at the log-log scale which should read 301. Multiply this by 4 which gives 1204. In fact, 4 is not exactly the right figure and to compensate one must subtract one in every three-hundred. There are four three-hundreds in 1204, so the answer is 1200. If the slide rule is better than a 10-inch one, the answer may be more accurate than 301, but then one would have to subtract a more accurate figure than 1 in every 300.

This system can also be used for ratios. A perfect fifth is 3:2; working as before, put the 2 above the 3, look at the log-log, which is 176, multiply by 4, 704, subtract 1 in 300, and the answer is 702.

This can also be done with string lengths. A length of 250 mm. against one of 500 mm. turned into 2.5 and 5 will produce the usual 301.

The slide rule can also be used to find vibrations from string length. I use a monochord of one metre at 220 vib. for ease of calculation and accuracy of pitch and measurement. Suppose that the pitch found is at 500 mm. (a known answer again), put 5 on the C scale above 2.2 on the D scale, look for 10 (representing the 1000 mm., the other known factor) on the C scale, and opposite it on the D scale is 4.4, the answer. This system can be applied to any length of string at any tension. Provided that three things are known, the fourth will be shown, and the three can be total length, found length and basic pitch as above, or total length, found pitch and basic pitch, for setting a note on the monochord.

All slide rules seem to be built a bit differently, but by putting 2 over 4 and looking to see what reads 301 it is easy to find out how each works. The longer the slide rule the more accurate the results will be; one of the rotating-rod type with a 50-inch effective length will give answers to several places of decimals. Personally I find the usual 10-inch rule is perfectly adequate, and the results more accurate than the Hornbostel table.

I ask no one to take my word alone for this system, nor would I take the credit for it. I was sure that there was an easy way for doing these jobs and two mathematically minded friends were kind enough to find it for me, Timothy Frost on vibrations from string lengths and Hugh Boyle on cents from vibrations.

JEREMY P. S. MONTAGU

Dulwich Village, London, S.E.21

Cortical Grooves on the Tibia. Cf. MAN, 1962, 287; 1963, 137,

227 ¹⁷⁹ STR.—Referring to vascular grooves on the tibia Mr. D. R. Hughes says: 'Such grooving . . . may occasionally be found, anomalously, in other parts of the skeleton.' I believe, however, that these sulci are more common than he suggests. In 100 Anglo-Saxon femora I have found them in 68 per cent., almost always in one, two or three groups crossing the posterior surface medially or laterally to the linea aspera. They were very strongly present in 30 of 34 British Bronze Age femora.

In 100 Anglo-Saxon humeri they were present in 22 per cent., usually occurring at any of three sites: on the medial surface of the 'surgical neck,' and just proximal or distal to the deltoid tuberosity. They appear to be rare on radius and ulna but are quite common on the clavicle where one often crosses the anterior surface of the medial third of the bone. In this position it approximately bisects the area of origin of the pectoralis major muscle. These grooves are also found indenting the axillary border of the scapula where they

are presumably accessory branches of either the subscapular or the scapular circumflex arteries.

Mr. Hughes rightly suggests that somewhat similar grooves may be caused by root action. I am now working on a substantial group of well preserved Late Saxon femora in which every bone is marked in this way. But there is little likelihood of confusing the two. The root grooving is far more copious, more delicately 'spidery,' more reticulate and less regular in its distribution than that due to normal vascular channels. It probably varies widely in different burial grounds.

CALVIN WELLS

Castle Museum, Norwich

The Determinants of Differential Cross-Cousin Marriage.

Cf. MAN, 1962, 47, 179, 238; 1963, 11, 87, 199

228 STR.—My long dispute with Dr. Coult is plainly futile. He must surely be the first professional anthropologist to assert that the relatives whom he denotes by the symbols MBSD, MBSSD, MFBSSD are properly described as classificatory cross-cousins?

My reference to the Kachin was not based simply on the fact that I have first-hand knowledge of this society but on the fact that for 40 years or more the Kachin have provided the 'type case' for so-called 'matrilateral cross-cousin marriage' (see bibliography to Leach, 1951). There is nothing exceptional about the way the Kachin behave; it is simply that some superficial observers have misunderstood the facts and some readers, including Dr. Coult, have misunderstood the literature.

Dr. Coult's 'theoretical arguments' (sic) are just nonsense. The only way to prove this is for Dr. Coult himself to go out and study a society which allegedly practises what he calls 'differential cross-cousin marriage.' If he will then record precisely, in the manner advocated by Rivers 60-odd years ago, the marital history and genealogical record of all the inhabitants in any given community he will discover, as all other close observers have discovered, that the recorded rule of 'cross-cousin marriage' concerns the marriage of individuals belonging to certain categories and does not depend upon any pre-existing relationship by blood.

Since Dr. Coult objects to my citing the evidence of my own memory, I suggest that he might consult the latest work of one of his own countrymen. Lehman (1963, pp. 91, 122ff.), referring to the Matupi and Haka Chins, is completely consistent with what I have written for the Kachins and completely inconsistent with Dr. Coult's theory. Enough said.

EDMUND R. LEACH

King's College, Cambridge

References

- Leach, E. R., 'The Structural Implications of Matrilateral Cross-Cousin Marriage,' *J. R. Anthropol. Inst.*, Vol. LXXXI (1951).
Lehman, F. K., *The Structure of Chin Society*, Illinois Studies in Anthropology, No. 3, 1963.

Correction. Cf. MAN, 1963, 208

229 It is regretted that, by a misprint which was not noticed until the reviewer's corrected proof arrived after the October issue had gone to press, those eminently non-political objects, the so-called 'moustache-lifters' (*ikubashui*), were described as 'liberation wands' instead of 'libation wands.'

REVIEWS

GENERAL

The World of Primitive Man. By Paul Radin. London, New York and Toronto (Abelard-Schuman), 1953. Pp. xii, 370. Price £1 5s.

230 This is the last important treatise on primitive man that Radin composed—he died a few years later, in 1959—and it is in a way a condensed summary of his main contributions to social anthropology, folklore and comparative religion. It is certainly true that Radin easily changed his points of view from book to book; but the basic ideas remain the same in all his publications, and the emphasis is always on the same subjects, viz. the individual and his creative activity, particularly in the world of religion and fiction, as well as the economic background for this activity. The present book brings the integration of this approach to the fore in a very apt way.

The author's aim was, as he says in the prologue, to portray those primitive societies which, in contradistinction to the great civilizations (the high cultures), had a stable social-economic organization, and 'where there was no devaluation of life on earth, where man's most insistent plea was that he be allowed to return to the earth and where the myth of an afterworld was but poorly developed.' The title of the German edition of this book, *Gott und Mensch in der primitiven Welt*, expresses perhaps more clearly than the English title the theme in which Radin here engaged himself, the balance between realism and supernaturalism among primitive peoples. Within this general frame he discusses central motifs known from his earlier research: the man of action and the thinker, the economic utilization of magic and religion, the ritual of life and death, the trickster and associated concepts, etc. He has definitely modified the economic determinism presented in his *Primitive Religion* (1937), and he now draws a line of distinction between the thinker and the religious man—certainly not very consistently, but it is there nevertheless.

The main theme of the book may be challenged, particularly since primitive peoples in general have vivid ideas of the afterworld. Strangely enough, Radin does not further deal with this complex of belief, although it is so essential to his presentation. It is on the whole a little odd that he, who strove so intensely for apprehension of nuances and individual variation, so easily has recourse to doubtful generalizations. In his distinctions between the man of action and the thinker he makes fine observations on their different psychology, but almost entirely leaves out the varying backgrounds—cultural values, cultural structures—against which these individuals operate. The collective forces guiding the individual preferences do not seem to have caught his attention.

Like several of his earlier publications (and some of his later, for instance *The Trickster*, 1956) the present work abounds with statements which have been reached rather lightheartedly and in a purely intuitive way. For instance, symbols in Winnebago myths or Dakota rites are discussed as if they had originated on the spot, whereas in reality they are spread over great areas and should be interpreted within a wider context. But besides many dubious statements there are often glimpses of a true insight, genial hints at the solution of vital problems. How are we to account for this *faiblesse* for intuitive judgments? Radin shunned what he called quantitative methods in ethnology, and he identified himself with the classic humanistic tradition as this had been elaborated in Central Europe. His interest in 'the thinker,' in primitive poetry and folk literature, is obviously connected with this attitude, but also with a vein of poetic imagination and intellectual playfulness which were characteristic of his personality. He tends to identify himself with the thinker and the poet, and sometimes—for instance in the last two chapters of the present book—the ideal picture of creative primitive man seems to reflect the author's own personality. The realistic pronouncement *μηδὲν ἄγαν*, do not overdo it, said to characterize so very often the attitude of primitive man, is even more attributable to Paul Radin's own credo.

Written in beautiful language and leavened with its author's own personality, this book from one of our most stimulating

anthropologists, presents a charming, in places provocative contribution to our understanding of the world of primitive man.

ÅKE HULTKRANTZ

The Human Palate. By R. M. S. Taylor. Basel, New York (Karger), 1962. Pp. viii, 108, 41 plates. Price 25 Swiss francs

231 The skeletal material for this study consisted of 97 skulls from the Chatham Islands and 24 Maori skulls. The great majority of the Chatham Island skulls were genuine Moriori. The material was classified in age groups mainly on the basis of the state of dentition; sex grouping was not attempted. The aim of the work was to study the palate in regard to its form, orientation in the skull and size relative to the skull. This was attempted by a combination of metrical and non-metrical methods. The metrical observations were made by (a) the indirect or craniostatic method and (b) the direct or non-craniostatic method. The non-metrical observations are not reported but the author states that these may be published separately.

The author makes a plea for the adoption of the craniostatic method where possible because it is relatively exact and thorough and because it surmounts, or reduces to a minimum, the following problems: (i) physical difficulties in measuring or in estimating projections; (ii) the difficulty of selecting a basic point on the skull to which variations in the palate could be related; (iii) using measuring points on the teeth which are themselves subject to variation in form and position.

The author describes, and points out the advantages of, the Reserve Craniostat which allows measurement in three known planes at right angles to one another using a movable pointer adjustable to any desired position on a skull. For comparison of measurements in a series of skulls it is necessary that each skull should be placed in the same position relative to the planes of the measuring instrument. This is possible with the Craniostat. All measurements obtained with this instrument are recorded as projections on one of three planes and are made to the nearest millimetre. The bony landmarks used in the study are carefully defined and the description of how the measurements are made in the Craniostat are detailed and precise.

From these measurements graphs were plotted for each skull, and by drawing construction lines to the points of reference, figures were formed and various angles measured to determine the orientation of the palate to the skull. Certain of the areas formed on the graphs were measured by means of an Amsler's Planimeter. For each individual specimen various indices were calculated and all the data were statistically treated. The author also presents the craniostatic contours of every specimen studied including an indication of their orientation in the skull. Groups of contours were superimposed for comparison; the groups selected were: (i) all the Chatham Island skulls; (ii) 12 Maori skulls; (iii) mixed group; (iv) the mean contours of the Chatham Island and Maori skulls. These contours were examined in both sagittal and frontal planes. The palatal hexagon was constructed by choosing various points in the midline and buccal surfaces of the specimens.

In Chapter 6 the author describes his non-craniostatic or direct method of measuring by means of calipers. The measurements for constructing palate plans and palate contours were made from bony points of reference, the teeth themselves being excluded because of their variability in size, form and position.

The palatal area and the palatal index are discussed and the limitations of the latter are pointed out. The relevant literature is reviewed throughout, the list of references given being adequate but not extensive. The results are tabulated in appendix form and the author discusses his method and results in a critical summary.

There is a group of 41 plates printed on glossy paper at the end of the work. The standard of the few photographs is poor and a number of the graphs are much too small. A useful general index completes a careful and studied work which will no doubt be

further improved by the publication of the non-metrical observations elsewhere.

A. R. MACGREGOR

Millennial Dreams in Action: Essays in Comparative Study.

232

Edited by Sylvia L. Thrupp. *Comp. Stud. in Soc. and Hist., Suppl. II. The Hague (Mouton), 1962. Pp. 299. Price 16 guilders*

This book is a collection of papers delivered at a Conference of social scientists in the U.S.A. which discussed the comparative study of millenarian movements. Synthesizing work of this kind is greatly to be welcomed, but unfortunately, instead of marking out some of the key principles underlying these various movements, most of the papers are discrepant accounts of particular movements which only add to the already very large volume of descriptive writing.

This is not to say that these are not valuable or interesting. The best by far is Justus van der Kroef's long analysis of messianic movements in the Celebes (the *mejapi* of the Bare'e Toradja), Sumatra (the *parhudamidam* among the Karo-Batak), and Borneo (the *njuli* of the Lawangan Dayas). The analysis here moves skilfully from pre-colonial to post-colonial cultural experience. Other papers are less interesting, and are sometimes quite scrappy: George E. Simpson on the Ras Tafarians of Jamaica, Howard Kaminsky on the Taborites, Donald Weiner on Savonarola are among the better and more extended. The rest are a flurry of notes and bits.

The main generalizing contributions come from Sylvia Thrupp, in a general round-up on the Conference; Norman Cohn; and George Shepperson. Each has valuable suggestions to make for future research. Each makes some valid general points for comparative synthesis. But the proportion of less valuable suggestions is high. Cohn and Shepperson work hard to show that millenarian movements are not confined to the lower orders, but can only produce minor cases which scarcely invalidate the general association. One can only contrast this with the masterly synthesis displayed in Mrs. Talmon-Garber's recent contribution to the subject in the *European Journal of Sociology*. Too often, ancient notions are trotted out as if they were novel illuminations; Sorokin's 'discoverer's complex' still afflicts scholars. Others are so general—'millenarism is a response to deprivation'—that their flatulence was evidently demonstrated at the Conference (as David Aberle pointed out, 'it is always possible after the fact to find deprivations').

Personally, van der Kroef's statement that 'neither the charisma, nor its *guru*, but the readiness is all' (p. 120), seems to me far more sociological than Thrupp's reiteration that the millennial dream has a 'logic of its own.' So it does, but without an appropriate social context, it remains the property of the tiny cliques which Shepperson and Cohn have rescued from obscurity. But Thrupp's suggestion that we need to look at 'functional alternatives' to millenarism is timely: this might well be tackled over a range of contiguous societies, for example in Melanesia.

PETER WORSLEY

The Science of Folklore. By Alexander Haggerty Krappe. London (Methuen), 1962. Pp. xxi, 344. Price £1 10s.

233

This is a reprint of a book by the late A. H. Krappe, first published in 1930, but not noticed in MAN. The author was a prolific writer on folklore, and he here summarizes his conclusions, mentioning or referring to a vast number of tales, songs, proverbs, superstitions and myths. The result is not very satisfactory, for he is apt to express dogmatic opinions without giving any reason for having formed them, and what he says on one page is not always easy to reconcile with what he says on another.

Of fairy tales he indicates that they all have a great deal in common, yet he holds that they were composed by individuals at various times and in various countries, and that their themes were derived from such various sources as myth, history, custom and nightmare. They were 'primarily designed to please and entertain,' yet, two pages later, 'that a large number' are 'purely didactic can admit of no doubt' (p. 13).

With superstitions his method is to fire them off in rapid succession, interspersed with such comments as 'no doubt entirely indigenous'; 'unquestionably of learned origin'; 'a piece of genuine folklore' (p. 251).

Of myths we are told that 'mythology... is a rather essential and quite useful element in the structure of any religion' (p. 313), but by the end of the chapter myths have become things of the past, and 'one may well regret this loss of the blooming fancies of man's childhood.'

As a work of science, then, the book has little to be said for it, but it is not without value as a kind of folklore dictionary.

RAGLAN

AFRICA

Sociétés d'Initiation Bambara: Le Ndomo: La Koré. By Dominique Zahan. *Le Monde d'Outre-Mer Passé et Présent, Première Série, Études VIII. Paris and The Hague (Mouton), 1960. Pp. 438, 24 plates, 10 text figs., map*

234

This volume consists of a short prolegomenon on the organization and underlying ideas of the six initiation societies (*dyow*) of the Bambara (who live in the Bamako region of Mali) and a book each on two of the societies. Four books on the other initiation societies are promised.

Dr. Zahan deliberately does not attempt sociological analysis and even omits to give a summary of Bambara social organization which would enable the reader to see how the initiation societies are articulated in the total institutional complex of Bambara society. That certain elements of the social structure, such as village chiefship, the elders and specialist craft groups, are treated as part of the divinely sanctioned social order is stated, but in what ways is not clear. Also, in only one instance, thanks to a footnote aside, is it clear how many persons were engaged in any of the specific ceremonies which are, otherwise, described most meticulously; nor is it explained how participants are recruited, nor what their roles are in other contexts. This missing dimension is the more unfortunate because this study is an extraordinarily detailed and sustained exposition which, within its self-imposed limits, is a masterpiece of ethnographical reporting and interpretation and a major addition to our understanding of the way in which Sudanic symbolic systems of this type cohere. The complexity of the argu-

ment defies brief summary, and it must be sufficient here to state that Dr. Zahan interprets the complex Bambara world view using the methods made familiar by the late Professor Griaule and his pupils, but with a dogged empiricism which distinguishes him. For example, he does not see myths as the key to the understanding of religious and social systems, but rather as an instructional expedient, 'comme moyen de vulgarisation de la connaissance,' and concentrates on interpreting the objects and activities which he was able to observe. Particularly illuminating are Dr. Zahan's elucidations of the symbolic referents of the famous horned masks and their associated dances, mimes and songs, and his explanations of the spiritual overtones of the seemingly gross coital mimes and coprophagous practices which have been reported in earlier accounts.

Just as all Bambara symbols are multi-referential, the societies are multi-purposeful, but perhaps the principal purpose of the societies is to guide the individual's course through life. Each of the six societies is responsible for a successive stage of initiation, of which the *ndomo* (Book I) is always the first and the *koré* (Book II) always the last. The *ndomo* is concerned only with the uncircumcised 'blind' children and associated with the feet and movement, and its purpose is to start the individual on the right path to the proper life; the *koré*, entered in early manhood, is associated with the sense of sight and its rites culminate in the symbolic death, circumcision and rebirth of the initiate as a manifestation of God. Each society in turn brings the initiate a step nearer to manhood and to God and so enlarges his perceptions of the nature of the universe, of

his own situation both in it and in his immediate social environment, and even of his own discrete humanity. Through participation in a long series of ceremonies an initiate's conceptual horizons are extended by the demonstration to him of the conflicting principles which both rack and bind individuals and society. Some of this knowledge is transmitted by verbal instruction, but primarily the initiate acquires it by participation in mimes and rituals in which material objects play a vital part. His comprehension of the extremely complex and subtle philosophical scheme depends on the degree to which his perceptive faculties are sensitized to an awareness of the correspondences and analogies between the symbolic referents of the objects and actions which are variously juxtaposed. The sequence of ceremonies aims to give him 'a new way of looking at things,' so that, for example, in the appropriate context, he may know that a spoon is not merely a utensil, but can evoke femaleness, envy, the rainy season, the transmission of knowledge and even death. The constant theme is 'à former les "yeux" de l'esprit, afin de les rendre aptes à examiner, détecter, interpréter, suivant les lois d'un symbolisme spécial, tout objet perçu par les sens.' In one of the ceremonies described the initiates were introduced to a stick on which 201 objects had been suspended, such as scraps of cloth, fragments of gourd and grains, each of which had several complementary symbolic referents. Individual attainment to understanding is obviously variable, and selected children of above average intelligence are groomed for specialization early. The author compares the knowledge of the 'grands initiés,' who have deep comprehension of the esoteric rationale, and that of the ordinary struggling initiate, with the variable knowledge of medicine of the western specialist and the man-in-the-street; the former knowing how it works, and the other only caring that it does.

Dr. Zahan has succeeded, to a remarkable degree, in penetrating the symbolic world of the Bambara specialists, 'who are masters of juggling with symbolic significances and reasoning by analogy,' and explaining it in language meaningful to westerners.

The large number of photographs and diagrams are clear and well selected.

P. T. W. BAXTER

The Ovimbundu under Two Sovereignities: A Study of Social Control and Social Change among a People of Angola.

235

By Adrian C. Edwards. London (O.U.P. for Internat. Afr. Inst.), 1962. Pp. xvii, 169. Price £1 10s.

This book is based on a year's field work in one of the remotest sub-chieftoms of the Ovimbundu and the author does not claim that his data have any wider generality. It describes some of the changes which have taken place in Ovimbundu society since the replacement of the sovereignty of the traditional kings by Portuguese rulers. Administration has been arbitrary, and ruthlessly unconcerned with both indigenous institutions and the human rights of the 'uncivilized' indigenes, but, at least at the local level, not very efficient.

The historical introduction depends on Child and Hastings because the present generation, 'part-peasant, part-proletarian,' are almost totally uninterested and unknowing about their historical past and traditional culture. Since the nineteen-thirties 'social change has rapidly dissolved most of the traditional institutions.' Kinship norms have altered, the double-descent system (if such there ever was) has disappeared, village organization is no longer based on agnatic kinship, parental control of adult children has weakened

and eating avoidances between relatives become generally ignored. Though 'preferential' marriage continues there is an increasing emphasis on the conjugal family and 'the conjugal bond is the closest social relation that can exist between adults.' Chiefs and headmen have been shorn of most of their symbolic importance and reduced to being insecure (the last five sub-chiefs were dismissed) enforcement officers of disliked regulations, such as the Labour Code and compulsory purchase of tickets for 'patriotic' film shows. Not surprisingly chiefs have little judicial power or influence.

Dr. Edwards is concerned with the settlement of disputes in a situation where the traditional legal system has crumbled and the new one is distrusted. He isolates, as playing the crucial roles of mediators between the Angolan government and the villagers, the *assimilados* (legal and self-proclaimed), pastors, priests and catechists, who have emerged as 'patrons' in place of the chiefs, kin-group heads and caravan-organizers. Indeed, the chapter on the catechist schools is the most interesting in the book which otherwise is a little light on data and heavy on too easy generalizations.

P. T. W. BAXTER

Portuguese Africa. By James Duffy. Cambridge, Mass. (Harvard U.P.) (London agents: O.U.P.), 1959. Pp. xii, 389, plates, maps. Price £1 18s.

236

This is an excellent history of Portuguese colonial efforts in Africa from the early sixteenth century until the late nineteen-fifties. A condensed version has since been published by Pelican Books. Mr. Duffy touches only in passing on the history of coastal fortresses like Elmina or Fort Jesus which did not develop into larger colonies or spheres of influence. He concentrates on the Kingdom of the Congo, and the coastal factories that became Angola and Portuguese East Africa.

It is a long tale of delusions and disappointments: of El Dorados that were never discovered; of royal monopolies that never filled the coffers of Lisbon because they could not be enforced; of the evangelization of Africa that remained a dream because there were no missionaries; of great expeditions that petered out. One idealistic *regimento*, or set of instructions from Lisbon, after another remained a dead letter, frustrated by corrupt administrators in league with local Portuguese slave-dealers or feudal magnates. The entire settlement effort remained ridiculously small until this century: after 350 years of sporadic effort the white population of Angola was 9,000—most of them administrators. In Portuguese East Africa much of the settlement and trade had to be left to Goans or British Indians. It becomes obvious that 'the capacities of small Portugal were equal to but one Portugal.'

'The heralded traditions of the Portuguese occupation,' says Mr. Duffy, '... are ... not much more than the pattern of behaviour followed by a handful of Europeans who barely survived four hundred years of African vicissitudes.'

And elsewhere: 'The reality is pretty much the same today as it has been for four hundred years: the indiscriminate use of the African for Portuguese profit ... Whether the African has been an export commodity, a domestic slave, a *liberto*, *contratado* or *volemtário*, his fundamental relationship with the Portuguese has remained the same—that of a servant.'

Because of the scholarly detachment of most of this book, such rare passages gain in impact.

MERRAN FRAENKEL

ASIA

Studies in Siberian Ethnogenesis. Edited by H. M. Michael. Toronto (U.P.) (London agents: O.U.P.), 1962. Pp. vii, 313. Price £1 8s.

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The 17 articles in this volume are translations of studies published since 1950 in the *Sovetskaya Etnografiya*, *Trudy Instituta Etnografii* and elsewhere. Most employ a historical approach in elucidating questions of national origin; this approach is of course not unusual, but some of the sources employed are—records of the

Siberian tax and fur-tribute collectors and, for the peoples of southern Siberia, Chinese chronicles.

The first five papers deal with the population of the Olenek and Anabar river basins in the north-west of the Yakut A.S.S.R. Gurvich shows how the earlier Tungus populations came to be submerged by the immigrant Yakut, so that today there is a vivid Yakut self-consciousness, and makes out a case to support the official policy of integrating this population with the central Yakut. It is a

pity that the editor saw fit to include the weaker supporting papers of Dolgikh and Suslov and omitted the paper by Terletskiy in the same journal contesting this view. A better balance is shown in the two papers on the history of the Buryat, Dolgikh maintaining that they were a heterogeneous group of tribes until the coming of the Russians under whose influence the Buryat nation emerged, while Tokarev disagrees.

Other approaches are however used in some papers. In the two dealing with the Amur region, while Smolyak examines the settlement and distribution of the Susheng, Ilu and Moho in the light of Chinese sources, Okladnikov uses the evidence from ancient petroglyphs to show that the modern art of the Amur tribes can be traced from neolithic times and, though stimulated by Chinese influence, did not stem from it, as Laufer's classical hypothesis held. Again, the historical study by Bernshtam of the dual emergence of the Kirgiz along the Yenisey and in the Tien-shan is supplemented by Debets's use of skeletal material to trace the degree and periods of Mongoloid admixture.

This volume will be of considerable appeal to those interested in Siberian ethnology; more generally, it is of interest in that it shows how these primitive peoples have been affected by Russian political developments—and incidentally hints how ethnological writings and writers are also affected. The almost total absence of biological material emphasizes once again how necessary it is for genetic surveys to be made among these peoples, to prove the validity of the affinities suggested to the writers by the historical evidence.

D. F. ROBERTS

Ulu: The World's End. By Jørgen Bisch. London (Allen & Unwin) 1961. Pp. 142, photographs

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Mr. Bisch is a Danish professional traveller and writer who went to Borneo in 1958 (in fact, though neither this nor any other precise calendrical detail is reported) to look for a hostile 'race of pygmies' in the interior—the Punan. This venture must have seemed especially worthwhile to him since he was persuaded that there is 'not very much' literature on the island. So he set off with four tons of equipment and made for 'Ulu,' whence, he was repeatedly assured, no one ever returns alive. (It seems never to have been conveyed to him with equal explicitness that *ulu* is not the proper name of a river or a place but is Malay for 'headwaters' or 'interior.') The details of his progress are obscure, since he refrains from burdening his account with such hum-drum facts as the names of the rivers he travelled on; and some of his moves—e.g. turning from the Limpang (*sc.* Limbang) into 'a tributary in order to return to Baram'—are perplexing when it is attempted to trace them on a map. On the way he spent 'some time' in an Iban community, and 'some time' also among certain similarly unlocated Kenyah, apparently on the Baram. Eventually, at any rate, he was paddled by people whom he believed to be Kelabit up 'the Ulu river' and there reached the 'Punan'—his 'new pygmies.'

They are a remarkable people, for they can transform themselves into shadows of trees and *vice versa* (or so the alleged Kelabit are said to have declared), and Bisch—who apparently spent 'several weeks' with them—asserts that they 'never break a leaf or bend a blade of grass.' These ethereal creatures are, understandably enough, the terror of the surrounding tribes, particularly of the Kelabit, who therefore barter with them by silent trade (of which this is the first report). With such advantages, it is less surprising that for them 'all existence is like play.'

The photographs, however, reveal that they are actually Penan Silat, Western Penan who have been forced by the neighbouring Kenyah (the Kelabit are miles away) to remove from the Kelame valley and settle in the lower Akah; and in their stolidly human fashion they disappointingly fail to enjoy most of the characteristics and institutions which the author attributes to them. Moreover, I was tactless enough to revisit them shortly after Bisch's departure; and whereas the latter claims, for instance, never to have posed photographs, the Penan reported that he dressed the men more traditionally and undressed the women more provocatively, while

their relation of the circumstances of his stay was considerably discrepant from his own.

The dramatic climax of the book inspires further doubts. The author tells how he with four Kelabit and a Punan (strange company, when the Kelabit, the author reports, had even abandoned their longhouse out of sheer fright at the approach of Punan) were tipped over in a rapid while travelling upriver 'near Ulu.' Their stores were lost and the canoe shattered, and it took all of nine harrowing days for them to reach safety at some unspecified place. The adventure is recounted in the form of a diary, which relates how they made a canoe by burning a tree trunk with hot stones (an interesting method hitherto unreported), and how they survived by eating parrot and raw mudfish.

The author doubtless felt it unfair that, after such privations, he should have been accused of murder (by imprisoning an old woman's soul in his little black box—a misunderstanding for which, of course, primitive peoples are notorious), and consequently be forced to travel by night through Bisaya country (to which he was somehow transported from the Baram, on his return to the coast from the Punan) in order to evade retaliation.

All of this reads so strangely, and so inconsistently with known ethnic and topographical facts, that it might even be taken for a clumsy fabrication, but then everybody knows that Borneo is a strange place. Still, the book contains six good and veracious portraits (Plates 26, 27, 30, 31, 33 and 38) which deserve a place—when correctly labelled—in any ethnographical collection on this part of the world.

The Sarawak Government must have had some inkling that the fruits of the expedition might be so disproportionate and equivocal, for at one point they forbade the author entry into the territory. For this they are satisfactorily repaid by an indictment of obdurate British shortcomings in the face of a 'fanatical desire for independence' which the author everywhere encountered. He concludes with a telling vignette of colonial oppression and suspicion of seekers after such unpalatable truths: 'If you call on a local British official you are told that he is extremely busy: but he is never too busy to keep open house for native chiefs, who are free to drink at the Government's expense.'

RODNEY NEEDHAM

Ambonese Adat: A General Description. By Frank L. Cooley. Cultural Report Series No. 10. New Haven, Conn. (Yale University Southeast Asia Studies) (agents: The Cellar Book Shop, Detroit), 1962. Pp. 97, 5 plates

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This monograph was excerpted from a doctoral dissertation (Yale) entitled *Altar and Throne in Central Moluccan Societies*, based on field research and on previous ethnographies. Because of the dearth of sociological data on contemporary *adat* in the Central Moluccas Dr. Cooley was asked to make pertinent parts of his dissertation available to a wider audience by extracting this monograph.

It deals with the village as an *adat* community and with various parts of the village *adat*, including marriage and family *adat*, *adat* with regard to land and its inheritance, *adat* with regard to the village community as a whole, and finally with the changes in *adat* since earlier times. The data have been conscientiously elaborated. Of particular interest in the extensive section on marriage and family *adat* is the status and role of the mother's brother in Ambonese society which is patrilineal and patrilocal. It was compared by one of the informants with the status of the *mamak* (mother's brother) among the matrilineal Menangkabau. His approval of a marriage partner may be decisive even if the father of the bride wishes to reject it. It has been suggested that this may point to a former matrilineal and matrilineal structure on the neighbouring island of Ceram. This explanation, however, has not been generally accepted.

The introductory statement that the term 'Ambonese' has traditionally been applied to the Christian population of the island and more especially to the inhabitants of the Christian villages of four of the islands is to be doubted. 'Burgerlyke stand' (p. 50) is not equivalent to 'civil ceremony' but to 'registry office.'

E. ALLARD

A SURFACE COLLECTION OF FLINTS FROM HABARUT IN SOUTHERN ARABIA*

By Joan Crowfoot Payne, Department of Antiquities, Ashmolean Museum, Oxford, and Stewart Hawkins

240 Early in 1961 one of us, Stewart Hawkins, was working in the area of Habarut; he was based on the fort, which is manned and maintained by the Hadhrami Beduin Legion. During exploration of the district round the fort he collected the flints which are described below.

The Site

Habarut is an oasis, position 52-45' East, 17-15' North, approximately 70 miles north-north-west of Ras Dharbat Ali, a headland in the centre of the South Arabian coast. It is on the frontier between the Mahra State of Quishn and Socotra and the Province of Dhufar in the territory of the Sultan of Muscat and Oman. The Wadi Habarut is one of the wadis which descend from the watershed of the Jabal Mahrat and run northwards into the Wadi Umm al Hait, to open out into the desert sands of the Empty Quarter. At the oasis itself the wadi is about 600 yards wide, and runs between steep brown sandstone hills that rise to approximately 3500 feet. On the west side of the wadi there breaks a fresh-water spring all the year round, and in the centre of the wadi there are pools around which grow reeds and rushes. Many date palms, perhaps a thousand in all, form a grove about a mile long on both sides of the wadi. When there are heavy rains the stream which issues from the spring continues for five to ten miles, but in normal times it disappears within a mile of the source. However, throughout the area, both above and below the spring, the water table is very high, and one need only dig down a foot or two to obtain a plentiful supply of water.

Flint implements were collected from two sites, both within 250 yards of the spring (sites A and B on the air photograph, fig. 1). Most of the specimens were found scattered over the surface of a low hill to the west of the spring, site A. Two handaxes were found close together on a flat hill top immediately overlooking the wadi on the west, site B.

Along both sides of the wadi there are caves in which live small encampments of tribesmen, mainly Bait Za'banat Mahra, Afari and Kathiri. At the present day, these people are the only permanent inhabitants of the oasis; at the date harvest the owners of the palm trees, who are from a number of tribes living both to the east and the west, return to gather the dates. With the exception of the date palms, there is no cultivation at all; flour, rice and other supplies are brought over the mountains from the coast by camel. In the wadis round about, particularly to the north, there is a limited amount of acacia and thorn, which provides a little grazing for herds of goats, sheep and camels.

Habarut appears to be unique in this part of Arabia. It is the only spring known north of the watershed. 'Hissi,'

or water holes, are found in several of the wadis, but these are not of a permanent nature, and do not support palm trees in numbers. The nearest reliable sources of water are Sanau, 160 miles to the west-north-west, and Thamud, 110 miles south-west of Sanau. Habarut would thus be an important link with wells further west for travellers by land from Dhufar to the Hadhramut.

STEWART HAWKINS

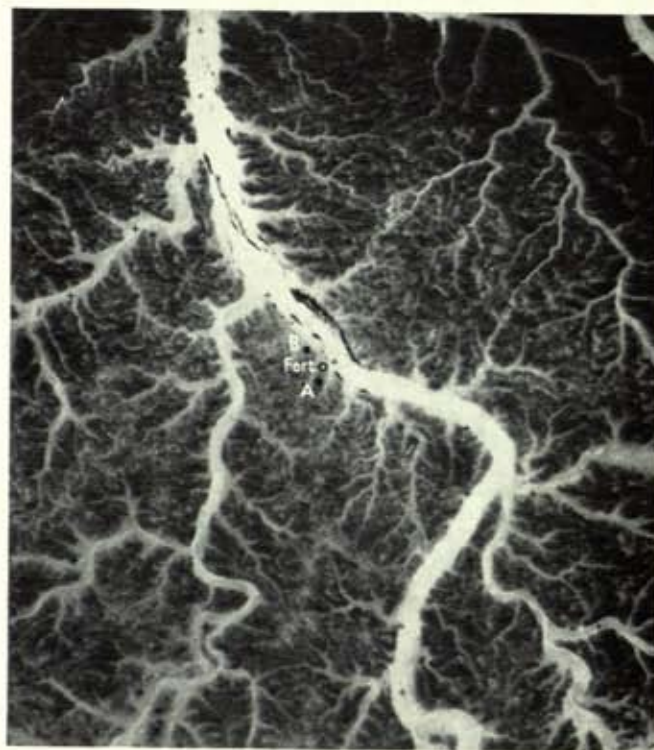


FIG. 1. THE OASIS OF HABARUT

Royal Air Force Photograph, Crown Copyright reserved

The Flint Implements

SITE A. A number of flint implements were collected from the surface of this site, a low hill a few hundred yards west of the spring at Habarut (A on air photograph, fig. 1). With a few exceptions, they are patinated brown, in shades ranging from pale to dark chocolate, and most specimens are wind-glossed. In some cases, the patina on one side is much darker than on the other, and generally this difference in patination is associated with a difference in surface condition, the darker side being wind-glossed, and the paler side matt. When it is possible to see the original colour of the flint in the patinated specimens, it is quite pale, pinky-grey to buff. A few specimens, either unpatinated or slightly mottled with white, are made of slightly translucent dark brown stone.

* With four text figures

Knives: 3 (fig. 2, Nos. 6-8). Three fragments of knives, a butt and two middle sections, are covered on both faces with diagonal parallel fluting retouch. All three show further nibbling retouch along the sharper edge; in the two more complete specimens, a back is made by steeper fluting retouch on one face, the flake scars from both edges meeting in a neat line.

Trihedral rods: 2 (fig. 2, Nos. 1, 2). Two specimens, both broken at both ends, are worked over all three faces with very fine flat retouch.

Tanged arrowheads: 3 (fig. 2, Nos. 3-5). Three fragments of arrowheads with tangs and small barbs are covered on both faces with flat retouch.

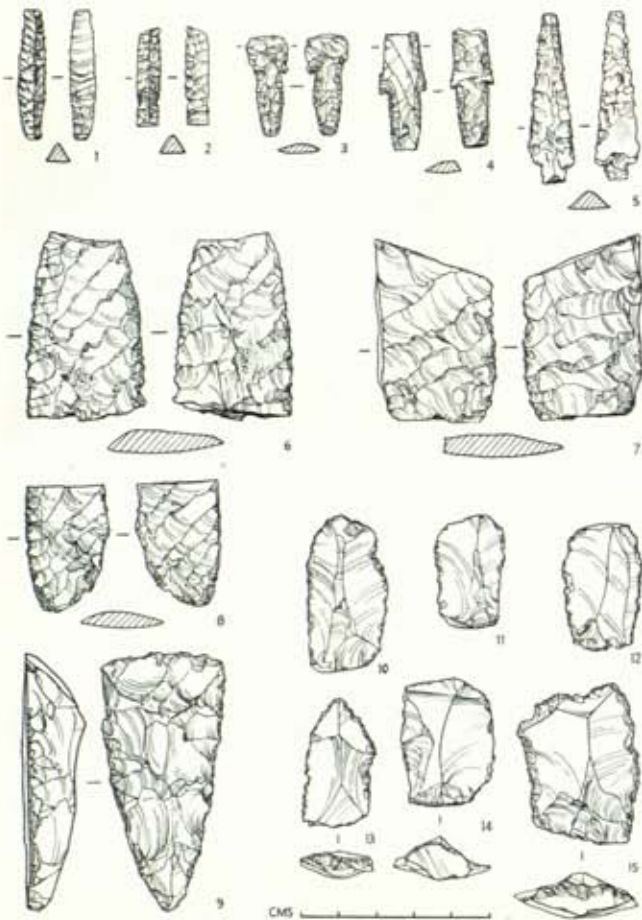


FIG. 2. FLINT IMPLEMENTS FROM SITE A ($\times \frac{1}{2}$)

Leaf-shaped points: 2 complete (fig. 3, Nos. 1, 2). Two complete specimens were found, both bifacially worked; the butts are more or less pointed, but thicker and less sharp than the tips.

Fragments of possible leaf-shaped points: 55 (fig. 3, Nos. 3-10). The bulk of the remaining specimens are fragments; they vary considerably in size, and in neatness of retouch, but it is possible that all are parts of roughly symmetrical leaf-shaped points similar to the complete specimens already described. In a collection in which such a very high proportion of specimens are incomplete, it is naturally not possible to be certain.

Nine specimens are incomplete at both ends: of these, one (fig. 3, No. 7) has a shallow notch in each side. The remaining 46 tools are all broken at one end, and more or less pointed at the other end, triangular in cross-section, with flat retouch over the upper surface, and in the majority also over the bulbar face. The smaller specimens, which in size appear to come within the range of the complete points, number more than half the total; many are very well made, with neat fluting retouch; in a few, the retouch is com-

parable with that on the knife fragments described above. A definite flattening of the pointed end in some specimens suggests a tip, and the reverse in others a tang, but in the majority it is not possible to hazard a guess. The larger specimens are generally less well made, with a high proportion of specimens with unretouched bulbar faces; again, some particularly thick blunt specimens suggest tangs, and others, thinner and sharper, suggest tips. It is, however, not possible on the present material to draw any dividing line between the larger rougher specimens, and the smaller finer ones, for every stage between is represented.

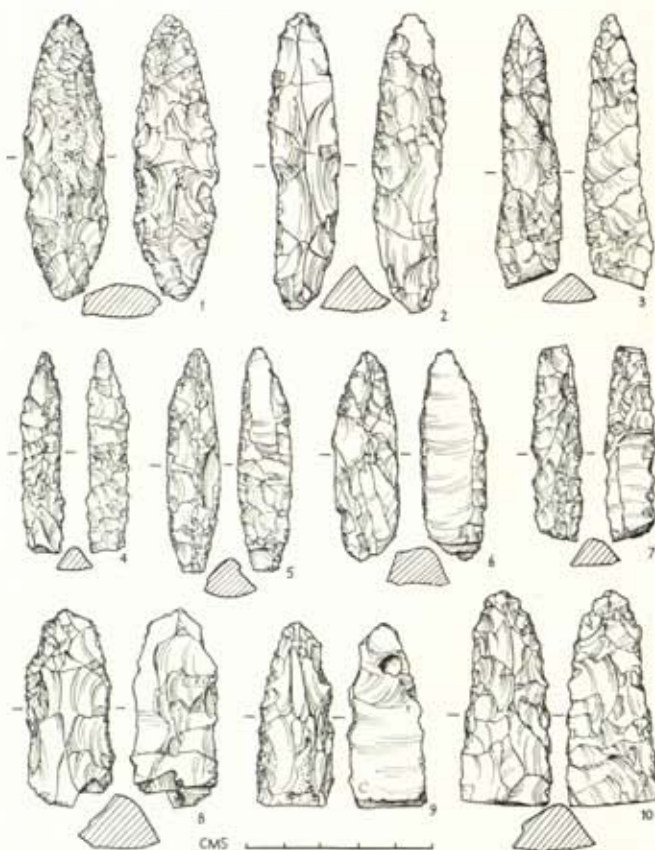


FIG. 3. FLINT IMPLEMENTS FROM SITE A ($\times \frac{1}{2}$)

On a few specimens (see fig. 3, Nos. 4, 5, 6) a long narrow flake scar, running from one end of the tool along part of its length, has removed some of the secondary retouch; a similar scar can be seen on one of the trihedral rod fragments. This scar recalls the way in which some neolithic flint axes are shattered, and is perhaps the effect of excessively hard impact on a hafted tool.

Scraper-plane: 1 (fig. 2, No. 9). This tool is made on a thick flake, with triangular section. Flat retouch covers the upper surface, the steep working end being slightly convex; the bulbar surface is not retouched. The retouch across the end of this tool is much rougher than that along the sides, and suggests that it is a re-use of a larger broken tool, perhaps a leaf-shaped point.

Flakes: 6 (fig. 2, Nos. 10-15). Six complete flakes, all small, with roughly parallel sides, have plain striking platforms with a bulbar angle of between 120° and 130° . Of these, one has irregular nibbling retouch along both sides, and all show signs of use; five show either rough retouch or heavy use along the ridge between the upper surface and the striking platform.

Comparable flints have been found at other places in Southern Arabia.

A small group of post-palaeolithic flints collected by Dr.

Caton-Thompson and Miss Gardner from the surface of a gravel ridge near Mukalla¹ is both geographically and typologically close to Habarut site A. The group includes a trihedral point, with parallel pressure flaking, a point, an awl and a 'slug,' all triangular in section and retouched over all faces, some small cores, and a flake. All these tools would be in place in the Habarut collection, and their combination at both sites increases the probability that both collections are homogeneous.

Surface collections of somewhat similar flints have been made from a number of sites in the Rub' al Khali.² These sites, however, resemble each other more closely than they resemble Habarut A. They include both leaf-shaped points and arrowheads, but other forms such as rhomboidal and round-based points are also found, and all are much smaller and more finely retouched than the Habarut specimens. For one of these sites, Field has published a carbon-14 date of $3,131 \pm 200$ B.C.³ Flints similar to those from the Rub' al Khali sites have been found at a site 5 km. south of Dukhan, in Qatar.⁴ The majority of these flints are tanged arrowheads, both finished and in various stages of manufacture; but a number of fragmentary 'sturdy points' and some planes are of interest for comparison with Habarut.

For comparative material outside Arabia, Egypt provides interesting typological parallels to Habarut A. Dr. Caton-Thompson compared the flints from Mukalla with those from the Faiyum Neolithic.⁵ From Habarut A, the trihedral rods, the leaf-shaped points, the plane, and the arrowheads would all be perfectly in place in a Faiyum Neolithic assemblage. However, hollow-based arrowheads and sickle blades are notably absent from Habarut. The knife fragments are more precisely paralleled by specimens from Predynastic Egyptian graves, but they show no signs of grinding.

SITE B. Only two tools were collected from this site, both small handaxes, found close together on the surface of a small hill above the spring (B on air photograph, fig. 1). They are made of pale grey-brown flint, with a thick deep cream patina with darker brown patches; on both tools, the patina is noticeably thicker on one face than on the other; there is no trace of wind gloss. Small patches of cortex on both faces of one specimen suggest the use of tabular flint.

The two handaxes (fig. 4, Nos. 1, 2) are remarkably alike in size and form. They are almond-shaped, with a thin pointed oval cross-section; the edges are fairly straight, and the butts thin. They show both step flaking and controlled flaking; marginal retouch is mainly on one surface in both tools, and is particularly neat round the butts.

Handaxes are rare in Southern Arabia, and the presence of even two surface specimens is noteworthy. A series of comparable handaxes have been found at one site in Arabia, Qawnasat ibn Ghudayyan (Nuhaydayn al-Qawnasah), in southern Saudi Arabia.⁶ Further afield, the fine series of Upper Acheulian hand axes from Kharga is also comparable.⁷ In both series, however, implements as small as those from Habarut are the exception. Even further geographically, but possibly worth mentioning as strikingly

close typologically, are handaxes from the middle layer of the water-hole deposit at Sidi Zin, in Northern Tunisia.⁸

This collection of flints from Habarut will be kept in the Ashmolean Museum, Oxford.

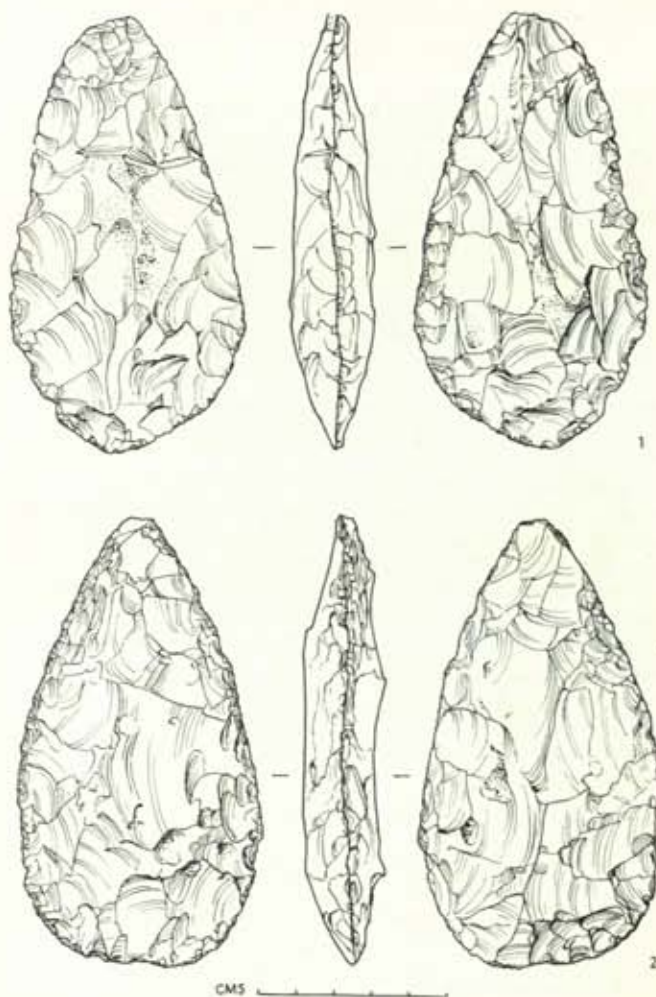


FIG. 4. FLINT IMPLEMENTS FROM SITE B ($\times \frac{1}{2}$)

I should like to acknowledge my gratitude to Dr. Gertrude Caton-Thompson, F.B.A., for most helpful suggestions.

JOAN CROWFOOT PAYNE

Notes

¹ G. Caton-Thompson, 'Some Palaeoliths from South Arabia,' *Proc. Prehist. Soc.*, Vol. XIX (1953), pp. 211-4, fig. 7, Nos. 56-62.

² F. E. Zeuner, 'Neolithic sites from the Rub-al-Khali, Southern Arabia,' *MAN*, 1954, 209; H. Field, 'New Stone Age sites in the Arabian Peninsula,' *MAN*, 1955, 145; *id.*, 'Stone Implements from the Rub'al Khali, Southern Arabia,' *MAN*, 1958, 121; *id.*, 'Stone Implements from the Rub'al Khali,' *MAN*, 1960, 30; *id.*, *Ancient and Modern Man in Southwestern Asia*, Vol. II, pp. 26-34; Philip E. L. Smith, 'Two "Neolithic" Collections from Saudi Arabia,' *MAN*, 1962, 17.

³ H. Field, 'Carbon-14 Date for a "Neolithic" Site in the Rub'al Khali,' *MAN*, 1960, 214.

⁴ H. J. Madsen, 'En Flintplads i Qatar,' *Kuml* (1961), pp. 185-200, fig. 11.

⁵ G. Caton-Thompson, *op. cit.*, pp. 212-4.

⁶ H. Field, 'Palaeolithic Implements from the Rub'al Khali,' *MAN*, 1961, 9; *id.*, *Ancient and Modern Man in Southwestern Asia*, Vol. II, p. 34, Plates I-XIX.

⁷ G. Caton-Thompson, *Kharga Oasis in Prehistory*, Plates XII, No. 1, XIV, Nos. 1, 2.

⁸ E.-G. Gobert, 'Le gisement paléolithique de Sidi Zin,' *Karthago*, Vol. I (1950), pp. 18-21, fig. 9.

SHORTER NOTES

A Note on the Connexion between Spirit Mediumship and Hunting in Bunyoro, with Special Reference to Possession by Animal Ghosts. By Dr. J. H. M. Beattie, Institute of Social Anthropology, University of Oxford

Nyoro have a highly institutionalized cult of spirit mediumship (the *mbandwa* cult), by means of which they have traditionally come to terms with many of the natural and other forces, mostly actually or potentially inimical, which surround them. The central figures in the traditional cult are the Cwezi hero-gods, but mediums may also be possessed by the ghosts of the dead and by many other kinds of powers. When the activity of a ghost or other spirit is diagnosed by a diviner who has been consulted on account of illness or other misfortune, it can only be dealt with by being induced to 'enter into' the person whom it is affecting. This can only be brought about through formal initiation into the possession cult, under the supervision of accredited ritual experts.¹

Certain spirits are concerned especially with hunting, and these include the ghosts of certain large animals killed by hunters. There follows a text about possession by the ghosts of slain hippopotami: this information was recorded from an informant who was a native of the Lake Albert coastal strip in Bunyoro, Uganda. It will be seen that it shows a certain similarity to Nassau's account of the propitiation of hippo spirits on the Ogowe River in Equatorial Africa.²

When a man kills a hippo for the first time he is made to climb on to the corpse of the animal and to stand on it, where it fell. The hippo's tail is cut off, and they hang it around that man's neck. The man who arranges this is called 'grandfather' (*isenkuru*); he is a man who has killed many hippos, and who is a medium for hippo ghosts. When this has been done they begin to skin the hippo. They take out some fat, and they take some beans (*bihimba*) and cook them in the fat, and eat them. No women may approach while this is being eaten, or while the hippo is being skinned. No one who is not a hunter of hippo can come near to pick up titbits while the skinning is going on; if anyone does so the hippo's ghost may haunt him.

Not all hippos can possess people. Only occasionally one that has been killed, usually an old one, may haunt its killer, and then it must be dealt with through the possession (*mbandwa*) cult. The hippo's ghost may attack its killer once, and make him run about like a madman there and then, or it may do so after some time has elapsed. If the latter is the case, then the man will begin to have dreams, or perhaps become ill. Then he will consult a diviner, and when the diviner has looked into the matter he will say: 'Eee! What have you been killing? What is troubling you is the ghost of some great animal; a really huge one!' Then the client thinks, and remembers killing that hippo. The diviner confirms that it is that hippo's ghost which is causing the trouble, and he arranges for his client to be initiated (*okutendekwa*) into the possession cult. And the person who supervises his initiation is the very man (called *isenkuru*) who put him on the hippo and placed its tail around his neck when he killed his first hippo; no one else may do it.

When he is initiated a feast is prepared, and the hunters and others eat and dance and sing the songs of hippo mediums. These songs do not have words; they consist of throaty, grunting sounds. Women may take no part in this, but they

can come and watch. The hippo's ghost comes and mounts into the head of the medium, like other *mbandwa* spirits. But it does not stay there long, as soon as it has come it is finished.

A spirit hut is made as a shrine for a hippo's ghost, as is done in the case of other spirits, and a hippo's skull is put inside it.

There are other *mbandwa* spirits which are concerned with hunting, and these may possess people who have killed hippos and other large animals. The most important of these in the lake shore regions are Kalisa and Iruba. Iruba is of the lake, and Kalisa is of the dry land. When a hippo is in the water it is under the control (*obusobozi*) of Iruba, who rules all the wild animals of the lake, while Kalisa looks after hippos and other animals on dry land. Iruba and Kalisa have their special hut-shrines.

The ghosts of buffaloes may also haunt their killers, but I have never heard of a person being possessed by a buffalo's ghost. If a man who has killed many buffaloes finds that he is being haunted by the ghost of one of them, he must be initiated into the possession cult of Irungu, the greatest *mbandwa* spirit of the bush and of all wild things.³ A ceremony of possession by Irungu may also be undertaken by a hunter who has failed to kill anything for a long time. Here is an account of a possession ceremony for Irungu.

I once attended a feast and possession ceremony for buffalo-hunters in Bugungu (in north-western Bunyoro). There was a man there, Yozefu, who had failed to kill a buffalo for a long time, and he was advised to make a feast for Irungu, the *mbandwa* of the bush. He prepared two drums of cassava beer, and invited all his fellow hippo-hunters to the feast. All the men in the neighbourhood came, bringing their spears with them. A stranger would have been terrified at the sight of so many armed men. The dancing started at about 9 p.m.; there were more than a hundred there. There was drumming and singing and dancing, and people were clapping their hands in time with the drums. At about midnight the *mbandwa* Irungu arrived; he came to tell Yozefu why he had been unsuccessful in hunting.⁴ First Irungu danced for about an hour with all the people; then he demanded that a completely black goat be killed. The goat was to come not from Yozefu's household, but from a neighbour's, and any urine it should pass on its way was to be collected and brought with it. When it arrived, Irungu told Yozefu to drink some of the urine, and he ordered that the rest should be mixed with the beer which was being drunk by the other huntsmen present. Then he ordered them to kill the goat, but it was not to be killed in the usual way by cutting its throat; it was to be stabbed from above in the back of the neck. All the hunters' spears were to be smeared in the goat's blood. These things were done as the spirit ordered. Then Irungu told them to cook the goat, head, horns and all. After this he started to divine; when he had finished his medium became unconscious and had to be carried away bodily. Then everybody feasted, and there was more dancing. This went on till six in the morning, but even then the hunters did not return to their homes. Instead they went straight off into the bush to hunt, for when Irungu was divining he had told them to do this, and that if they did they would be successful.

Unfortunately my text does not relate whether they were lucky or not.

Hunters may sacrifice not specifically to Irungu or another

spirit, but to the spirit world generally. A final brief text refers to this:

When hunters go to an area far away from home they take with them a handful of special food called *nsigosigo*, which is a dry mixture of millet grains, green sesame and pigeon peas, together with a brown cock. When they get to the place where they want to hunt, they sacrifice that cock, and 'sow' the *nsigosigo* seeds in the bush and pray in these words: 'You, the nineteen who are looked up to above, now I beg you that I may kill many animals in this bush; I am calling upon all of you, both those of below and those of above.'⁵

The reference to nineteen is to the Cwezi spirit-gods, of whom this is the number traditionally worshipped.

Notes

¹ For an account of this ritual see my 'Initiation into the Cwezi Spirit Possession Cult in Bunyoro' (*African Studies*, vol. XVI, No. 3, 1957), and for a discussion of some types of *mbandwa* spirits, and of the social significance of the cult, see my 'Group Aspects of the Nyoro Spirit Mediumship Cult' (*Rhodes-Livingstone J.*, Vol. XXX, December, 1961).

² R. H. Nassau, *Fetichism in West Africa*, London, 1904, quoted in W. C. Willoughby, *The Soul of the Bantu*, London, 1928, p. 20.

³ Like some other spirits, the *mbandwa* spirit Irungu may also possess professional mediums who use it for purposes of divination. An informant told me that when he was a small boy he attended such a *séance*, held late at night, and when he wanted to leave the house his mother told him not to, saying that as Irungu was in the house there would certainly be many dangerous wild animals about outside.

⁴ In fact, of course, it was a professional medium, in a state of possession by the spirit Irungu, who arrived. But the text speaks not of the medium but of Irungu himself, who was supposed to be present 'in the medium's head.'

⁵ In Lunyoro: *Bararomirwa ikumi na mivenda hati usabire ekibira kinu nyite ebisoro bingi muno; embandwa zona hamu ukungire ensueguru.*

The a-b Ridge Count in Palmar Dermatoglyphics of the Indians of the Punjab.*

242 By Praveen Kumar Seth, Department of Anthropology, University of Delhi, Delhi. With a text figure and two tables

Fang (1950) has classified the *a-b* ridge count (total *a-b* ridge count of the two palms) of an individual into categories, viz. 'low value' and 'high value.' The *a-b* count of a person is termed 'low' if it is 78 or below and 'high' if the count exceeds 78. A pair of allelomorphic genes is said to control the inheritance of the *a-b* count (Fang, 1950): the allele for the high value being dominant over that of the low value. Fang's (1951) further studies in the Ontario-British, the European Jews and the Ontario-Indians have shown racial variations in the *a-b* ridge count but, statistically speaking, no significant sex differences.

Material and Methods

The present analysis concerns itself with the *a-b* ridge count of 100 individuals, both of whose palms were 'printed' in each case. The sample is derived from college students (Chandigarh) who come from different families of the Punjab.

No selection was applied in collecting the subjects and the sample in varying degrees represents almost all the sub-castes of the Punjabis. Every precaution was taken to keep the total sampling random, though stratified, and consequently representative of the people of the Punjab.

* This study was carried out during the writer's tenure as a University Research Scholar at the Department of Anthropology, Punjab University, Chandigarh, India.

The collection of the palmar prints and their analysis was done in strict compliance with the techniques of Cummins and Midlo (1961), the pioneers in dermatoglyphics. The palmar digital triradii *a* and *b* (fig. 1) were joined on the print itself by a fine straight line drawn with a sharp pencil. Every ridge touching or crossing the straight line was included in the count, the triradial points *a* and *b* (fig. 1) or the radiants being excluded.



FIG. 1. A RIGHT PALMAR PRINT

Illustrating the four digital triradii (*a*, *b*, *c*, *d*) and the *a-b* ridge count

Results and Discussions

The modal frequency of the *a-b* ridge count in the male group is 76-78 and in the female group is 73-75. The first figure accords with Datta's (1961) findings for the people of Andhra Pradesh while no such data is available on Indian females.

The probability for one degree of freedom for a χ^2 of 0.000831—as applied to 62 males and 38 females of Punjab—is less than 0.99 and greater than 0.95. Thus, statistically speaking, there is no significant sex difference in the present study and this is in conformity with Fang's (1951) earlier findings.

The mean total *a-b* count for the males is 76.42 and for the females is 80.68 with insignificant bimanual variations. The incidence of individuals with low value (78 or below) is 54.84 per cent. in males and 55.26 per cent. in females and the standard deviation for the total ridge count presents a figure of 12.48 for males and 9.08 for females. The coefficient of variation (the standard deviation as a percentage of the mean) is 16.25 and 11.18 for males and females respectively.

It is evident from Table II that the mean *a-b* ridge count is highest (86.25) among the Ontario-British males and is lowest among the male Indians of Punjab (76.42). The close proximity of the male Indians of Punjab (76.42) to the Indians of Andhra Pradesh (76.92) is obvious as regards their *a-b* count. The fairly equal incidence of the mean *a-b* count among the females

(Table II) is quite significant. The standard deviation as compared with the other ethnic groups does not exhibit any appreciable differences. Likewise, the coefficient of variation also remains

TABLE I. FREQUENCY DISTRIBUTION OF 62 MALES AND 38 FEMALES OF THE PUNJAB ACCORDING TO TOTAL *a-b* RIDGE COUNT

Group Number	Total <i>a-b</i> Ridge Count	Number of Individuals	
		Males	Females
1	46-48	1	—
2	49-51	1	—
3	52-54	2	—
4	55-57	1	—
5	58-60	2	—
6	61-63	3	—
7	64-66	3	—
8	67-69	4	1
9	70-72	6	4
10	73-75	4	9
11	76-78	7	7
12	79-81	4	2
13	82-84	5	4
14	85-87	6	1
15	88-90	6	3
16	91-93	3	3
17	94-96	2	3
18	97-99	2	—
19	100-102	—	—
20	103-105	—	1
Total		62	38
Mean <i>a-b</i> ridge count		76.42	80.68
Mean <i>a-b</i> ridge count for right hand		37.74	40.03
Mean <i>a-b</i> ridge count for left hand		38.68	40.66
Percentage of low value (78 or below)		54.84%	55.26%
Standard deviation (total ridge count)		12.48	9.08
Coefficient of variation (total ridge count)		16.25	11.18

TABLE II. MEAN *a-b* RIDGE COUNT WITH STANDARD DEVIATIONS, COEFFICIENT OF VARIATION AND PERCENTAGE FREQUENCIES OF LOW VALUE

Ethnic Group	Sex	No.	Mean	S.D.	Coefficient of variation	Per cent. of low value	Investigator
British	F	435	83.01	9.7	11.6	26.7	Fang, 1950
	M	424	83.04	10.3	12.4	29.7	
	A*	859	83.03	10.1	12.1	28.3	
Ontario	F	83	85.54	10.2	11.9	24.1	Fang, 1950
British	M	77	86.25	10.5	12.1	27.3	
	A	160	85.88	10.3	11.9	25.6	
Indians of Punjab	F	38	80.68	9.08	11.18	55.26	Seth, 1962 (present study)
	M	62	76.42	12.48	16.25	54.84	
	A	100	78.04	11.41	14.62	55.00	
Ontario	F	14	85.64	9.9	11.5	14.3	Fang, 1950
Indian (P.S.)	M	26	83.42	8.7	10.4	34.6	
	A	40	84.20	9.0	10.6	27.5	
Ontario	F	43	81.08	10.5	12.9	32.6	Fang, 1950
Indian (N.I.)	M	29	80.00	9.1	11.3	37.9	
	A	72	80.51	9.9	12.2	37.4	
Bavarian	F	150	83.97	—	—	34.66	Baitsch and Schwarz- fischer, 1959
	M	50	80.96	—	—	38.00	
European Jews:							
Russians	F	38	80.16	9.7	12.0	42.1	Fang, 1950
	M	26	81.38	11.2	13.7	42.3	
	A	64	80.66	10.3	12.7	42.2	
European Jews:							
Polish	F	27	79.98	7.7	9.6	40.7	Fang, 1950
	M	41	79.74	13.0	16.2	51.2	
	A	68	79.84	11.1	13.8	47.1	
Indians (Andhra Pradesh)	M	80	76.92	8.1	10.6	61.2	Datta, 1961

* A is the sum total of M and F.

within the range observed among other populations for whom the data are available.

However, an important fact observed from the comparative Table II is the distinctly higher frequency of individuals with a low value in the Indian population from Andhra Pradesh (Datta, 1961). The percentage frequency of the individuals with low value in the Indians from Punjab is slightly low as compared with that from Andhra Pradesh. This may be due to the sample from Punjab comprising both males and females, though exhibiting no sex differences.

Summary

1. Palmar prints of 100 individuals (62 males and 38 females) have been studied with a view to determining their ethnic affinities in the *a-b* ridge count.

2. The mean *a-b* ridge count in the Indian population from Punjab is 78.04 with a standard deviation of 11.41 and a coefficient of variation of 14.62.

3. The percentage of low values is 55.00 per cent. in the Indians (Pb) whereas it is about 45.00 per cent. in European Jews (Fang, 1950).

4. No significant sex differences and bimanual variations have been observed.

5. The Indians from Punjab are fairly close to the Indians from Andhra Pradesh as regards their *a-b* ridge count.

Acknowledgments

My thanks are due to Professor Dr. P. C. Biswas, Dean, Faculty of Science and Head of the Department of Anthropology, University of Delhi, for the keen interest which he evinced in this paper; to Dr. Indera P. Singh and Dr. A. K. Mitra, Readers in Anthropology, University of Delhi, for translating some portions of a German text; to Dr. S. R. K. Chopra, Head of the Department of Anthropology, Punjab University, for providing me with laboratory facilities; to Professor Dr. N. K. Gupta for providing me with all the necessary facilities in the Government College, Chandigarh, for collecting the present data.

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On the Masai E-Unoto. By Edward L. Margetts, M.D., Associate Professor, Department of Psychiatry, University of British Columbia, Vancouver, B.C. (Specialist Psychiatrist to the Kenya government, Mathari hospital, Nairobi, 1955-9). With three text figures

This note will supplement Lord Claud Hamilton's recent essay on the Masai *E-unoto* ceremonies, the details of which are not fully known, let alone witnessed and understood. The chief value which can be claimed for the present article is the series of unique photographs which I was able to take of some of the ritual.

It was my good fortune to attend, over a one day period, that part of the Masai *E-unoto* in which the sacred heifer is sacrificed and the *muran* receive the hide finger rings. The date of the ceremony was



FIG. 1. THE GATHERING OF THE MURAN

(a) About 500 muran gathering in a circle; (b) Seated and ready to start the heart and finger-ring ritual.



FIG. 2. THE HEART

(a) Heart rubbed on the forehead; (b) Muran takes a bite of the heart.



FIG. 3. THE HIDE STRIP

(a) Hide strip is placed on middle finger of right hand; (b) Muran admires his ring.

25 July, 1958, and the place was somewhere between Uaso Kedong and Suswa, i.e. west of the Kedong River in the Rift valley below the Kikuyu escarpment in Kenya. The gathering site for the warriors was deep in the bush about two hours march from the *manyatta* outside of which the *O-singira* hut was located. Europeans in the party, in addition to myself, were Charles Hayes, Jack Couldrey and Jeremy D. Lunn. About 500 *muran*, heads shaved and reddened with ochre, carrying sticks instead of spears, sat around in a huge circle. The forehead of each warrior was rubbed with the heart of the slaughtered animal and then the *muran* took a bite of it. Following this, a strip of hide, about four or five inches long and one-half or one inch wide, pierced at one end by a one-inch slit, was placed over the middle finger of the right hand of each tribesman.

The magical significance of the heart and finger strip is not accurately known. Nothing magical is ever very clear! The heart probably signifies life and blood, and the binding of the warrior to cattle, the life-giver of the Masai. The significance of the hide strip is even more obscure, perhaps merely a symbol of brotherhood and of the association with cattle but possibly of sexual connexion (finger symbolizing male genitals, slit in skin female). If the latter, the individual Masai would certainly not be aware of this meaning, which would have originated long ago in an individual magician's mind and have been obscured for all others over the years. Finger strips and rings, and wristlets, are commonly (though not always) used as symbols of sexual union in East African tribes, e.g. the Wakamba use a finger ring from the knuckle hide of a goat as an amulet against male sexual impotence (Margetts, personal observation) and prior to marital sex consummation the Nandi groom wears a goatskin ring on his right middle finger and the bride a strip around her left wrist (Huntingford, 1953, p. 28).

After this day-long ritual the tribesmen returned late at night to the *manyatta*, where further ceremony was carried out at the *O-singira* hut.

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A Possible Case of Amputation, Dated to c. 2000 B.C. By

244

D. R. Brothwell and V. Møller-Christensen (Carlsberg Foundation Research Fellow), Sub-Department of Anthropology, British Museum (Natural History).

With three text figures

Through the kindness of Dr. A. J. Arkell, and the authorities of University College, London, a series of early Egyptian pathological specimens was recently transferred to the Sub-Department of Anthropology of the British Museum (Natural History). Among these human skeletal remains, apparently undescribed

but certainly deserving full description, is part of an ulna and radius, from Sedment, dated to the IX Dynasty. The distal halves of these two bones, together with the hand, had certainly been missing for some time before death (figs. 1, 2).



FIG. 1. THE SEDMENT ULNA AND RADIUS (IX DYNASTY)

General Description

The right forearm consists of the remains of an ulna with a fairly complete proximal articular end, and a shaft fragment of radius measuring 86 mm. The total length of the forearm represented—from the olecranon to the lowest point on the ulna shaft—is 137 mm. Considering the general size and proportions of what remains of these bones, it seems likely that the original forearm length was about 240 mm., and thus about 100 mm. of the ulna and radius has been lost through amputation.

The stump displays considerable healing, and is well rounded except for the development of a few osteophytic processes at the middle of the stump (producing a 'notched' appearance). The shafts at this 'distal' end are united medially by a thick bridge of

bone some 12.5 mm. long. Scattered pitting and some degree of irregularity, especially on the radius shaft, demonstrated that the amputation certainly resulted in some degree of inflammation, but probably of very limited extent. The fact that this infective process can be seen does suggest that this loss of the distal extremity of the arm was not of extremely long standing.



FIG. 2. RADIOGRAPHIC DETAIL OF THE SEDMENT ULNA AND RADIUS

Photograph: British Museum (Natural History)

Judging by the symmetrical rounding of both shaft ends, the instrument responsible for the cutting-away of this lower part of the right arm seems likely to have been at approximately right angles to the long axis of the forearm. Although there is some thinning and narrowing in the immediate vicinity of the stump, the shafts appear generally to be free from disuse atrophy. Considering this fact, and the remaining evidence of inflammation, it seems unlikely that the amputation occurred many years before death.

Other Evidence of Amputation from Egypt

Loss of part of a limb may have resulted from one of three factors: (a) as a result of injury during battle; (b) as a punishment for theft, etc., or as a part of the process of recording the numbers of prisoners; (c) through infection or injury, with subsequent intentional surgical amputation.

Of these alternatives, it is quite certain that during at least some Dynasties, amputation of a hand was a not unusual method of recording the number of prisoners after a group conflict. Thus in fig. 3, part of a scene from the Temple of Ramesses III at



FIG. 3. AMPUTATION OF HANDS

Part of a scene on the walls of the temple of Ramesses III, Luxor

Medinet Habu, Luxor, clearly shows this recording procedure. The date of this work is *c.* 1200 B.C., but the earliest example of this nature is to be found in the temple of Karnak, which dates from the time of Merneptah, 1223–1211 B.C. According to I. E. S. Edwards (personal communication) it seems likely that this practice was introduced in the XIX Dynasty, and it is certainly not represented earlier on any of the extant monuments. Amputation as a punishment and deterrent measure was certainly common in some parts of the world during some periods of the Christian era (Møller-Christensen, 1961; Brothwell and Møller-Christensen, 1963), but there is no good evidence in much earlier times. Surgical reasons cannot be ruled out. Trephination was certainly undertaken (though not commonly) in very early Dynastic times, as evidenced by the skull from Tarkhan, described by one of us elsewhere (Oakley, Brooke, Akester and Brothwell, 1959). The extent of later surgical work is clearly indicated by such evidence as the Edwin Smith Papyrus.

The final possible cause of the loss of the right hand and lower arm is through armed combat. Although it cannot be ruled out as an alternative, it is perhaps the least likely. The shape of the amputation stump certainly suggests that the original incision was clean-cut and approximately at right angles to the shaft, which seems unlikely to have resulted from a glancing blow of considerable impact.

Conclusions

The specimen represents one of the earliest instances of amputation so far described. If it is the result of social determinants, either as a legal or military procedure, it establishes a much earlier date for such socially controlled actions than any hitherto recorded. On the other hand, it might be a further indication of early Egyptian surgery, and indeed, the fact that more than the hand had been removed certainly gives weight to this alternative. The least likely explanation is that the injury was received during armed combat.

Acknowledgments

We wish to record our thanks to Mr. I. E. S. Edwards, Keeper of The Department of Egyptian Antiquities, British Museum, for his valuable help on temple scenes depicting hand-removal.

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A Note on Holed Stones and 'Rain Stones' in the Lake Rukwa District of Tanganyika. By Miss J. R.

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Harding, Tsumeb, South-West Africa

During a collecting safari in 1958 I met Fr. Melsen of the White Fathers' Mission at Makete who handed me a holed stone and some 'rain stones' for the museum at Dar es Salaam, where, as far as I know, they are still preserved. These stones came from Lake Rukwa and from Fr. Melsen I gained the following information about the use of such in that area.

Holed stones were used in sacrificial rites, when the blood of an animal (usually a fowl) was poured through them and the tribal ancestral spirits called upon to intercede with Ngu (god, or one who is 'from high up') on behalf of the people. Father Melsen told me that he had personal knowledge of two such usages, one in 1906 during a smallpox epidemic, and the other in 1931 during an invasion of locusts. The stone now in the Dar es Salaam museum, I understand, was used by the Wakimbu during the

smallpox epidemic and Fr. Melsen himself witnessed the blood-pouring ceremony. It shows a cylindrical or straight perforation with lateral polishing. The surface round the perforation is flattened, which suggests, whatever its original use, that it has also been used for grinding purposes.

The 'rain stones' include (as far as I can now remember) one or two artificially rounded stones of the kind commonly regarded as bolas stones, and often associated with Stone Age sites, and some water-worn stones. These are called *evula* (i.e. 'rain stones'), and they came from the Gua Mission on the shore of Lake Rukwa. From October to the middle of November (when rain can be expected in any case!), the 'rain stones' were taken to the top of a hill above a stream, and were piled up into a pyramid. Over this a grass roof was erected. The people averred that these stones, of their own volition, rolled down the hill into the stream and there remained for two or three days until they were thoroughly soaked and heavy with water. They then (again of their own volition) came out of the water and rolled 'slowly' up the hill to take up their former position. It was believed that some kind of 'telepathic communication' then took place between these and other stones and that this communication helped to bring rain from Blantyre and Zomba in Nyasaland and other places known to have a high rainfall. It was reasoned that from those places thunderstorms with the accompanying rain would travel up Lake Nyasa to the Lake Rukwa area. The old people of Lake Rukwa still firmly believe in this myth and still regard their chiefs as the guardians of their 'rain stones.'

CORRESPONDENCE

'Les Noirs Réfugiés Boni de la Guyane Française.' Cf. MAN, 1963, 143

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MONSIEUR.—J'ai lu avec un vif déplaisir le commentaire de mon ouvrage 'Les Noirs Réfugiés Boni de la Guyane française' paru dans le numéro de juillet de MAN sous la signature de M. Rivière.

J'ai l'impression que l'auteur de ce commentaire n'a pas lu à fond l'ouvrage, car son texte ne met en évidence aucun des concepts fondamentaux de la société des Noirs Réfugiés, tels que je les ai dégagés, en particulier:

— Le caractère rigoureusement matrilineaire et matrilocal de cette société, qui ne se retrouve actuellement nulle part dans l'Ouest africain

— La doctrine morale remarquable élaborée par les Noirs Réfugiés, comportant notamment l'interdiction de la violence, de la vengeance et de la sorcellerie.

On pourrait me reprocher de n'avoir pas décrit de façon approfondie les cultes. Mais le terme *shallow* appliqué à ma description de la parenté et de la coutume familiale est consternant. J'ai étudié cette tribu d'un effectif de 1000 personnes pendant 10 ans. J'ai non seulement reconstitué entièrement les généalogies, mais recherché sur le terrain, champ par champ, les zones constituant une propriété collective, de façon à établir en toute certitude la structure et la composition du lignage.¹ Je crois donc savoir de quoi je parle. Ce système d'organisation est simple et ne comporte qu'un très petit nombre de termes de parenté; j'en suis bien fâché pour M. Rivière, mais il en est pourtant ainsi. C'est manquer de discernement que de m'opposer l'ouvrage du regretté Professeur Herskovits, ouvrage datant de 30 ans et rédigé dans de mauvaises conditions, puisque Herskovits comme ses prédécesseurs s'était heurté à la mauvaise volonté des Noirs Réfugiés et n'avait pu relever aucune généalogie; ce qu'il a écrit contient de nettes erreurs.

D'une façon générale, il me semble que dans un commentaire il vaut mieux s'abstenir de porter des jugements de valeur, à moins de connaître personnellement le sujet et d'avoir une expérience plus étendue que l'auteur du livre, ce qui de toute évidence n'est pas le cas ici.

JEAN HURAUULT

Institut Géographique National, St. Mandé, Seine

Note

¹ Ce qui soit dit en passant, constitue une indispensable synthèse de données géographiques et sociologiques et une méthode de travail rigoureuse, éliminant tout risque d'erreur.

Maize in West Africa. Cf. MAN, 1963, 150

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SIR.—As I am quoted in the article by Dr. Stanton and Mr. Willett, 'Archaeological Evidence for Changes in Maize Types in West Africa,' I beg to draw attention to the fact that Mr. Willett's contention (and that of Professor Portères) on the introduction of maize into West Africa as put forward by Mr. Willett in his article in *Africa*, Vol. XXXII (1962), has been discussed by me in my article 'How Ancient is West African Maize?' (*Africa*, Vol. XXXIII, No. 2, 1963) and shown to be lacking in any historical foundation.

I would also like to draw attention to a fallacy in Dr. Stanton's statement that 'except in the depths of the forest, prior to the advent of maize, sorghum was grown down the coast of West Africa, but was rapidly and completely replaced by maize, after this was introduced.' Except for the short strip of lower rainfall on the Gold Coast, the West African coast from Sierra Leone to the Congo is in the rain forest belt where climatic conditions are fatal to the growth of cultivated sorghum. On the evidence of the higher rainfall and from my 31 years' experience of West Africa I am able to state categorically that sorghum was never able to grow in the rain forest belt and so could never have been 'replaced' by maize. Dr. Stanton has been led astray by Dapper's errors published in the seventeenth century.

My claim put forward in *Scientia*, July-August, 1953, that Arabs had traversed the Atlantic c. A.D. 1000 has received corroboration in a recent article by Dr. Hui-Lin Li, 'A Case for Pre-Columbian Transatlantic Travel by Arab Ships,' *Harvard Journal of Asiatic Studies*, Vol. XXIII (1960-61). There he shows that in Chinese sources, datable at 1178, there are Arab records of such sailings and a probable description of maize. See also my article 'The Banana in the Americas,' *Journal d'agriculture tropicale et de botanique appliquée*, Vol. X, Nos. 5-7 (1963).

With reference to Dr. Stanton's note on *The Jeffreys Theory*, I will quote Professor Carl O. Sauer in 'Maize into Europe,' *Akten des 34 Internationalen Amerikanistenkongresses*, Vienna, 1960, p. 785, where commenting on 'the Portuguese on the coasts of Africa and their early knowledge of maize' and my concern with this subject, he says: 'I thought to have a look on my own through the early Portuguese writings on overseas and found the Jeffreys thesis confirmed that maize in Africa was pre-Columbian and that the Portuguese took it to Portugal from Africa, not from America.'

Perhaps Dr. Stanton would state what are the botanical considerations and evolution of the crop that do not fit in with the 'Jeffreys Theory.'

Witwatersrand University, Johannesburg

M. D. W. JEFFREYS

Structure of Personal Names on Tory Island: A Correction.

Cf. MAN, 1963, 192

248 Owing to a misinterpretation of a proof correction by the author, a mistake occurred in the formula for the Tory personal name in Mr. Fox's article in the October issue. The central line of the formula should have read:

$$\begin{array}{c} fa \\ Ce + S \\ mo \end{array}$$

i.e. a man can take his father's or mother's Christian name after his surname.

REVIEWS

AFRICA

Death, Property and the Ancestors: A Study of the Mortuary Customs of the Lo Dagaa of West Africa. By Jack Goody. London (Tavistock Publ.), 1962. Pp. xii, 452. Price £2 15s.

249 This long book is a considered contribution to descriptive ethnography and comparative sociology. Its core is an encyclopedic description of the mortuary customs and systems of inheritance observed, between 1950 and 1952, in Birifu and Tom, two settlements with a combined population of about 4,000 which lie near Lawra in Northern Ghana. Under 'mortuary ceremonies' are included, 'funeral ceremonies, ideas of the after-life, the worship of ancestors,' indeed, 'the main areas of social life concerned with man's mortality.' The transformation of a corpse into an ancestor, and the redistribution of roles among the living which that involves, are described in more detail, and analysed more acutely, than in any other account of which I am aware.

Dr. Goody has described the complications of nomenclature, boundaries, settlement patterns and domestic groups in this area in earlier publications, and here he gives just sufficient introductory background material to provide a setting for the particular problems which he discusses. A Lowiili complex, represented by Birifu, and a Lo Dagaba complex, represented by Tom, are distinguished within the phyle which is here dubbed the Lodaga. Jointly they share a relatively uniform culture, which itself is part of that generally known as Lobi, and which also, in many respects, is like that of the Tallensi. But this study is concerned to describe and 'explain' the differences between the communities rather than their similarities. The most conspicuous differences are those centred in property relationships; particularly, the methods of transmitting property from one generation to the next and the related mortuary customs. These are also the differences pointed out by the Lodaga themselves; and the author himself was only able to distinguish a few minor cultural differences between the two communities which were not directly or indirectly connected with rights in property. The basic independent variable is that whereas among the Lowiili all property is transmitted agnatically, among the Lodagaba, though immovable property passes agnatically, movable wealth is transmitted to uterine kin. So that, using property-holding as the criterion of corporateness, only the Lodagaba have both corporate matrilineals and patrilineals, though both groups recognize double claniship in other contexts. This difference in the inheritance systems explains the differences which occur at sacrifices in times of affliction in the two communities. At such times sacrifices are demanded by the ancestors but, 'a man can only return by sacrifice what he has received,' i.e. a man sacrifices to the ancestors who belong to the same wealth-holding corporation as himself. These variations, in the ancestor to whom sacrifice is made and the descendant who offers it, are correlated with variations in the role behaviour of the various other categories of persons with whom the deceased had social relations. Well brought out in these sections of the narrative is the way in which almost every slight shift of role behaviour is accompanied by some external sign, particularly by variations in 'dressing up.' Other institutions which have property elements, e.g. debt, witchcraft, slavery and marriage

are also differentially affected in each of the two groups by the type of their attachment to the basic variable. It follows that certain inter-personal ties and inter-role relationships are differently emphasized in the two communities; particularly those between father and son, mother's brother and sister's son, husband and wife, and these are examined in detail.

Dr. Goody has taken great pains to be unambiguous, not only in his description of Lodaga behaviour but also in his consideration of each theoretical point as it arises, and has endeavoured to make explicit each assumption he makes. This has required him to make 'a deliberate attempt to consider the relevant theories put forward by earlier writers,' their utility for the treatment of his own data and the possibilities of refining them. This he does with modesty and persistence, and further makes good points on a variety of topics which are peripheral to his main theme, e.g. totemism, taboo, the role of women, adultery, joking relations, colour symbolism and friendship. But, it does make for discursiveness and, perhaps inevitably, sometimes gives his discourse a ponderously didactic tone.

This excellent book demands and justifies the most attentive reading by all students of comparative sociology.

P. T. W. BAXTER

Une société de Côte d'Ivoire hier et aujourd'hui: Les Bété.

By Denise Paulme. Paris (Mouton), 1962. Pp. 204

250 Écrire un livre de 200 pages sur une population particulièrement renfermée, au terme d'une visite de six mois, doit être considérée, dans l'état actuel de l'ethnologie africaine, comme un exploit exceptionnel devant lequel reculerait plus d'un spécialiste. En s'aidant de ses précédentes expériences acquises chez les Kissi guinéens, Madame Paulme n'en a pas moins réussi nous présenter un ouvrage agréable à lire et comportant pages édifiantes; il faut l'en féliciter.

Des observations pertinentes, de nombreuses anecdotes et plusieurs récits authentiques composent, dans le style personnel de l'auteur, un texte vivant et évocateur. Néanmoins, on se rend compte, à chaque page, des déceptions rencontrées auprès d'une population aussi méfiante que les Bété modernes, arrachés brutalement à un passé sans doute matériellement pauvre mais sociologiquement équilibré, et jetés dans un présent dominé par de graves soucis d'ordre politique et économique. C'est peut-être par ce qu'il reflète, par son caractère fragmentaire, l'instabilité et des remous psychologiques engendrés par l'actuelle situation, visiblement dysharmonique, que le livre rappelle plutôt un carnet de notes, de documents provisoires, qu'un travail de synthèse.

Il semble cependant qu'il y a eu un certain malentendu au départ: à la page 8, Madame Paulme reconnaît d'être venue chez les Bété retrouver des associations féminines comparables à celles qui existent, par exemple, en Sierra Leone et au Libéria, et à étudier à loisir le *bundo*, cette société féminine qu'elle avait pu étudier avec tant de succès aux environs de Guékédou en haute Guinée: hélas! le *bundo*, on le sait, n'existe pas en Côte d'Ivoire. D'où, probablement, cette impression de pauvreté culturelle qui a tant frappé l'auteur.

Il est indéniable que les structures mentales de ce groupe ethnique en transformation apparaissent en surface plutôt simples, linéaires; il n'en est pas moins vrai que, malgré son présent état de détérioration, la société bété a su préserver une pensée assez riche en subtilités dialectiques pour qu'elle justifie une étude systématique (celle-ci, effectivement, se trouve en cours et promet d'apporter des ouvertures nouvelles).

De toute évidence, une circonstance majeure peut expliquer le barrage imposé en l'occurrence à une femme ethnologue: les Bété composent une société à prépondérance masculine dont l'accès est, dans ce cas, rendu particulièrement malaisé sinon hostile.

Ainsi, les résultats matériels de l'enquête ressemblent à une image solidement cadrée mais peinte de couleurs insuffisamment nuancées par rapport à la réalité.

La thèse, soutenue par l'auteur pour expliquer, du point de vue dynamique, l'actuel déséquilibre de la société bété, est basée sur un passage trop rapide du stade de cueillette-chasse-guerre au stade d'une économie monétaire reposant sur l'exploitation industrielle du caféier. Cela est fort vraisemblable, bien que l'accent mis par Madame Paulme sur le tempérament guerrier fondamental du Bété nous paraisse relever davantage d'un mythe social (employé par la tradition en vue de l'élaboration d'un modèle culturel) que de l'état réel des choses. D'ailleurs, le sujet 'chasseurs et guerriers' nourrit l'un des chapitres les plus intéressants du livre. Il a été déjà précédemment publié, sous sa forme intégrale, dans le *Journal de psychologie normale et pathologique*, Paris, 1960.

En ce qui concerne le plan du travail, celui-ci est d'un schéma très simple et clair: précédés d'une introduction intelligemment conçue et illustrée de diverses expériences ou de comparaisons, deux premiers chapitres sont consacrés au peuplement de la région de Daloa, y compris une liste nominative occupant quinze pages; deux autres chapitres décrivent l'organisation familiale, et deux autres encore traitent de l'aménagement du sol. Les chapitres suivants, tous bien documentés et accompagnés de précieuses figures, portent les titres: chasseurs et guerriers; cultes publics et privés, magie et sorcellerie; cultes d'origine récente, l'*assié* et le *téképan*, les deux étant d'inspiration baoulé.

Dans son ensemble, l'ouvrage de Madame Paulme, bien qu'il exprime parfois des vues matériellement contestables, constitue, par sa conception générale, un apport de grande valeur à la connaissance d'un groupement humain difficilement pénétrable et soumis aujourd'hui aux nombreuses influences déformatrices; il a aussi le mérite de nous proposer quelques outils d'analyse inédits et d'introduire en même temps dans le tableau la présence humaine de l'observateur.

B. HOLAS

A History of Islam in West Africa. By J. S. Trimingham. Glasgow University Publications. London (O.U.P.), 1962. Pp. x, 262. Price £1 10s.

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It would not be quite correct to state that to write a history of Islam in West Africa is premature. The Arabic sources for the period down to about A.D. 1400, during which they are virtually the only sources, are now almost all available in more or less satisfactory texts or translations and it seems unlikely that our store of basic material here will be significantly increased. For the following centuries we have the accounts of Portuguese and (later) other European travellers which become more and more abundant and detailed as they approach modern times, and a mass of traditional material collected by fieldworkers, official or academic, since the beginning of the European domination in Africa. The native written sources are gradually being discovered and published though they do not seem likely to contribute much of value, particularly for the centuries before the nineteenth. However, the process of digesting all this material has hardly begun and it is not possible yet to weld it into a coherent whole. If the picture as painted by Dr. Trimingham looks very patchy and confused the fault is not entirely his. He has handled an intractable subject as well as anyone could handle it at present, and if the remainder of this notice is a catalogue of blemishes it should not be taken to detract seriously from a solid achievement.

Two sources are quoted of which the originals exist only in MS., so Dr. Trimingham has relied on the published translations. But they have let him down. 'Zuhri (A.D. 1137) mentions Sudanese Berbers islamized by the Murābiṭūn as once Christian' (p. 15, note 1). I have not checked the French translation but the Arabic Zuhri is speaking not of 'Sudanese Berbers' but of the inhabitants of the city of Ghāna which (he says) is the capital of Ganāwa. It is uncertain whether Ganāwa is a people or a region, as so often in Arabic, and, if a people, whether they are black or white. This, incidentally, seems to be the earliest occurrence in Arabic of the name Ganāwa, which generally denotes negroid people. Moreover, one of the MSS. and a quotation in another work have 'pagans' instead of 'Christians.' And then inexplicably, a reference by Ibn Khaldūn to Ṣanhāja of the Sūs is taken to apply to these Ghanians. Elsewhere (p. 70) there is a reference to a passage in Gaudefroy-Demombynes's translation of 'Umarī's *Masālik*: 'Mansa Musa mentions the copper mine at Zkra which he says brought in more revenue than anything else' but, with respect to the eminent French Arabist, the translation is incorrect; the Arabic clearly means that duty is levied on this copper and on nothing else.

At other times uncertain elements in the sources are transmitted without the uncertainty being made clear. For example, the town of Iresnā is mentioned on p. 28 without there being any clue for the uninitiated that this is but one way of reading a toponym variously rendered as Barisā, Burunsā, Yarisī, etc., which Delafosse identified (but without certainty) with Diaressi near the present Ambidié on the Senegal River. The same applies (p. 91) to the titles *si*, *shī*, or *sumi* given to members of the Songhay dynasty. As far as I know these are all one and the same word. The difficulty is, how is the deformed Arabic to be read?

But these are small matters. Dr. Trimingham has made a brave and not unsuccessful attempt to bring coherence into a very confused field and his successors will be grateful to him for his pioneer effort.

J. F. P. HOPKINS

The New Societies of Tropical Africa: A Selective Study.

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By Guy Hunter. London (O.U.P. for Inst. of Race Relations), 1962. Pp. 376, map, tables. Price £2 2s.

About 1958 the director of a firm with widespread interests in Africa came back from a tour convinced that his managers needed guidance on how to live and do business in a nationalist continent. From this idea the present book has grown. It falls into three parts: a historical introduction to questions of culture contact; a discussion of the inter-relation of social and economic factors; and then an avowedly speculative consideration of political trends and of the quality of the new societies. The useful, and longest section is the second one with its examination of economic growth, rural development, labour and the African manager, the African trader, education and related factors.

Mr. Hunter is very conscious of the ambitious nature of his survey and clearly a work written for the general reader about a rapidly changing region ought not to be judged by the same standards as a scholarly monograph. Many of the most important requirements for a book of this kind are fully met by Mr. Hunter's volume. He has brought together much useful information on the current economic, social and political situation in the new nations; his treatment of the issues is always intelligent; he has avoided all the more popular pitfalls, in particular the common failure to see that many criticisms of African social patterns apply equally to British life; and he has presented his study in a straightforward and readable manner.

In retrospect, however, it seems unfortunate that so much of the original objective should have got lost on the way. Had the Institute of Race Relations first ascertained what information the managers and others like them really needed, how they reacted to different kinds of instruction, and then in the light of this produced, say, a case book setting out a few properly detailed analyses of commercial problems to show how they tied in with different features of the African scene, then they might have fathered a work of permanent interest, well justifying an expensive enquiry. As it is, I fear that, because of the relative shallowness which Mr. Hunter's broad and subjective approach forces upon him, this book will soon be

superseded and that it can never have the abiding value of Lord Hailey's *Surveys* to which Mr. Mason makes reference in his introduction.

Mr. Hunter has tried hard to throw off colonialist preconceptions, but at several crucial points he has been unsuccessful. His historical approach, for example, is from colonial history. Had he adopted an African standpoint and started with a description of traditional social life in one or two selected cases, he could have shown how encompassing is the moral order and how intimately social relationships and husbandry are intertwined, and in this way established the character of African society in the centre of his discussion instead of bringing in some of these points peripherally so that they lose their force (cf. p. 126). As expatriate managers do not normally read anthropological literature, this would have been the basis from which to discuss the motivation of the African worker; by showing how the introduction of cash payment affects the varying sectors of traditional life unevenly he could, for example, have explained why the worker sometimes grudges paying money for food (p. 98). All too often Mr. Hunter retreats into generalizations at points where—I should imagine—officials and business men would appreciate guidance; for example, his useful discussion of the critical issue of the credit-worthiness of African traders (pp. 135-41) peters out into the suggestion that three stages can be distinguished: barter, partial specialization and capitalism! Again, some statements show a surprising failure to appreciate the findings of careful research, e.g. 'Typically, Africans have returned, after a period of migratory labour, to the tribal society, and this is good evidence that it was where their heart lay' (pp. 195f.). Studies from Africa and the Middle East show that where the town dweller is allowed reasonable liberty and economic security he is extremely reluctant to be parted from the excitement of urban life.

Europeans in Africa have continually preferred to think of the African as a countryman and to close their eyes to the character and growing importance of African urban life. Mr. Hunter could have helped correct this had he devoted the final chapters to the structure of urban communities and of consumer markets instead of to political speculation and moral testimony. The scholar's suspicion of the basis of Mr. Hunter's judgments of social quality and doubts about his acquaintance with European history cannot help but be aroused when he can say of Europe, 'the explosive breaking of the family has left a moral vacuum' (p. 341). Nor is it pedantic to deplore the many errors in the documentation.

MICHAEL BANTON

The Medieval History of the Coast of Tanganyika, with Special Reference to Recent Archaeological Discoveries. By G. S. P. Freeman-Grenville. London (O.U.P.), 1962. Pp. 238, maps, plates. Price £2 10s.

This book deals largely with the history of the sultanate of Kilwa (Kisiwani) on the southern Tanganyika coast, and includes a translation of the whole of its Arabic Chronicle, together with a translation of the summary made by Barros from a 'chronicle of the kings of this town' which appears in the first *Decada* of his *Da Asia*. The book begins with an introductory essay of 22 pages on 'The Tanganyika Coast as Part of Azania,' in which there are brief notices of the Periplus of the Erythraean Sea, Ptolemy, and the Arab geographers. A passage from a Chinese writer of the ninth century, Tuan Ch'eng-shih, is quoted because it describes the people of Po-pa-li as drawing blood from the veins of cattle and drinking it mixed with milk. This is a very old Hamitic custom, and the Masai, with whom Dr. Freeman-Grenville compares the Po-pa-li, practise it to this day. But there are no grounds for supposing that the Masai were within reach of the coast before the seventeenth century. The second part of the book concerns Kilwa, and the translation of the Chronicle is occupied by a commentary and illustrative extracts from other documents. The extent and organization of the Kilwa state is discussed, and special attention is paid to the mediaeval coinage of the coast. A valuable chapter is No. IX, which contains a survey of all the other known historical sites on the Tanganyika coast (62 in number) between the Kenya frontier and Mikindani.

This is by far the most important book yet published on the history of the East African coast from Mogadishu to Sofala. (It

should be used in conjunction with the same author's companion book *The East African Coast: Select Documents from the First to the Earlier Nineteenth Century* (Clarendon Press, 1962) which contains, in English, all the chronicles of the city-states, and selections from the Arab and Portuguese writers and other sources.) Of its value and interest there can be no doubt: Dr. Freeman-Grenville has a firm grasp of his subject; his enthusiasm and knowledge are manifest, and the book is likely to retain its value for a long time. Unfortunately it is somewhat marred by a poor and sometimes rather naive style, though some of its worst sentences may be due to the fact that the book was printed in Germany, and the proof-reading has been very careless. There are many misprints, and some errors, such as Hayward for Haywood on pp. 14, 21, 22, 190. The bibliography is poorly set out, and Boxer and de Azevedo's *Fort Jesus and the Portuguese in Mombasa* (1960) should have been included. The abbreviation Ant., though given for *Antiquaries Journal*, is also used for *Antiquity*. The author says that he uses current English forms for well-known Arabic names and words, like Mecca, Mameluke; yet he consistently writes 'sultān' and 'sultānate.' The maps, which have no scale, are concealed behind a folding table and are difficult to get at. These blemishes, however, do not seriously detract from the excellence of a good and thorough study which makes use of all the available sources of information.

G. W. B. HUNTINGFORD

The Nyasaland Elections of 1961. By Lucy Mair. London (Athlone P.), 1962. Pp. 87. Price 18s.

Some books by social anthropologists are published so long after the writers have completed their fieldwork that they are well out of date by the time they appear. Such a criticism cannot be levelled at this book. The Nyasaland elections took place in August, 1961, Dr. Mair wrote the book in September, 1961, and it was published at the beginning of 1962. The author is to be congratulated on this.

The book contains a description of the constitutional background to the election and of the parties taking part, in addition to a chronological account of the registration of voters, the nomination of the candidates, the election campaign and the polling. Clearly in studies of this type more use can be made of documentary sources than is generally the case in more traditional fields of anthropological investigation. Dr. Mair has skilfully used both documentary sources and her own field investigations to produce this lucid and readable account.

The speed with which the fieldwork was carried out and the book produced may have been responsible for a few errors which have crept into the text, e.g. the Church of Central Africa Presbyterian was not (as stated on p. 51) founded when the European congregation of the Church of Scotland dissociated themselves from the missionaries and the African congregation. Such errors are, however, incidental to the main theme of the book. Social anthropologists may also miss any attempt to relate the election and its preceding campaign to wider features of the changing political and social structure. The lack of significance of tribal affiliation in influencing membership of political parties, for instance, presents a contrast to elections in other parts of the African continent. Dr. Mair does not attempt an analysis of the election on this level, but it is hardly to be expected that she would do so in the time available.

This book gives a very vivid and detailed account of one stage in the political development of Nyasaland. It should have a great appeal to anyone interested in the rapid changes taking place in modern Africa, regardless of whether or not they are social scientists.

R. L. WISHLADE

Senegal: A Study in French Assimilation Policy. By Michael Crowder. London (O.U.P.), 1962. Pp. [viii], 104. Price 7s. 6d.

'The French,' Mr. Crowder tells us, 'when confronted with people they considered barbarians, believed it their mission to convert them into Frenchmen. This implied a fundamental acceptance of their potential human equality, but a total dismissal of African culture as of any value.'

The policy of assimilation which this belief involved was applied chiefly in the towns of Senegal, where French and Senegalese children sat side by side in the schools. Rights and privileges denied to other Africans were increasingly conferred on French-speakers, but the latter came gradually to realize that they were ceasing to be Africans without becoming French, and this was sharply brought home to them by the savage colour-bar policy adopted by the Vichy Government. This was reversed with the fall of Vichy, but the demand for independence gradually grew. Mr. Crowder traces the course of events which led to it, describes the present situation, a fairly satisfactory one, of the 40,000 French still in the country, and sketches the possibilities of its future. An advantage is that nearly all the Senegalese belong to related tribes; disadvantages are a rigid caste system, and a custom of licensed sponging by relatives which makes it difficult for anyone to start or carry on a business.

The book is well and clearly written, except for Chapter VI. In this there are so many references to political parties by their initials that some paragraphs are little more than strings of capital letters.

RAGLAN

The Arab Role in Africa. By Jacques Baulin. Pp. 144. Price 3s. 6d.

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Portugal in Africa. By James Duffy. Pp. 240. Price 4s. 6d.

A Short History of Africa. By Roland Oliver and J. D. Fage. Pp. 280. Price 5s. **African Profiles.** By Ronald Segal. Pp. 352. Price 6s. All Harmondsworth (Penguin), 1962.

The public demand for paperbacks on Africa seems to be insatiable and the resultant flood in Britain and America includes some good and many indifferent works. The first four eggs from the Penguin African Library are very disparate. *A Short History of Africa* is a valuable synthesis of the growing corpus of African historical scholarship, which is scattered in conference papers, articles and monographs by anthropologists, archaeologists, botanists, ethnologists and linguists, as well as historians. It is perhaps inevitable that the need for compression and the striving for coherence should have led Roland Oliver and J. D. Fage to curtail the argument and the qualifications concerning the relationships which they set out. For example, their concept of a 'Sudanic Civilization' derived from Meroe (and in some cases from Axum), embracing not only the states of Ghana, Mali, Songhai and Kanem-Bornu, but also those of the Guinea coast, the Congo basin and Monomotapa, is presented, not as a challenging hypothesis, but as a fact. Some, too, would question the validity of their unqualified assertion that 'Six or seven thousand years ago... Africa was already inhabited by the ancestors of the four main racial types recognized as indigenous in historical times—Bushmen and Pygmies, Caucasoid "Hamites" and Negroes'; and others would regard their treatment of the partition of Africa as excessively simple. There are also a few places where the authors go too far in their efforts to correct the traditional European underestimate of African as compared with European achievements, as where we are told that 'from the eighth to the fourteenth centuries... Europe... [was] passing through a dark age redeemed only by the surviving light of Christianity.' The new school of historians of Africa must beware lest they substitute a new myopia for the old! Nevertheless, this book is far the best introduction to the subject that exists; and it includes useful maps and an admirable select bibliography. He who wishes to gain a perspective view of the history of Africa cannot do better than use this as a starting point.

A discerning discussion of *The Arab Role in Africa*, based on historical knowledge, would be of great value. Jacques Baulin's book lacks such a foundation. It is a superficial account of Nasser's Egypt, with three brief chapters on the modern Maghrib, and a historical introduction which is so impressionistic as to be positively misleading. The publishers are not to be commended for declaring that this book 'will add a new dimension to the future development of the continent.'

James Duffy's *Portugal in Africa* is essentially a summary of his scholarly study of *Portuguese Africa* (Harvard, 1959), with the main emphasis given to the present unhappy situation. Ronald Segal's *Profiles*, containing biographical sketches of 64 contemporary African politicians, organized on a country-by-country basis, is mainly an amended version of some of the entries in his *Political Africa* (Stevens, 1961).

LEONARD M. THOMPSON

The Sonjo of Tanganyika: An Anthropological Study of an Irrigation-Based Society. By Robert F. Grey. London (O.U.P. for Intern. Afr. Inst.), 1963. Pp. xiv, 181, plates, diagrams. Price £1 17s. 6d.

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This book is the result of six months' field work among the Sonjo of northern Tanganyika, a small tribe surrounded on all sides by the Masai. The villages and the irrigation system and its control are well described, but the remaining elements in their structure are not dealt with so clearly, or even adequately, largely no doubt because of lack of material. Though their social structure is said to be related 'in a significant way to the practice of irrigation,' the book reveals little of this relationship, either in the social field or in religion. The Sonjo in fact would seem to be like the Keyo of Kenya, who make use of an irrigation system which they certainly did not devise, and whose structure is that of a normal pastoral tribe of the Nandi group.

It is useful to have a book on the Sonjo, even if it omits much of importance, and ethnographers will be glad to have what is offered. But the author has allowed his hydraulic hypothesis to override other matters, and the 19 pages devoted to it would have been better occupied with information on other things which is either conspicuously absent or else not sufficiently precise, such as the nature of the relationship system, death and the treatment of the body, the initiation ceremony (p. 87), and the age-set organization. The longest chapter deals with religion. Here there does seem to be a distinctive feature, for Sonjo beliefs are said to centre round a culture hero named Khambageu, and a number of myths about him are given. There is also an ancestor cult, about which little is said, and in addition there is a priesthood, the duties of which are concerned with rites in the temples (huts externally like ordinary dwelling huts), though we are not told what these rites are, because the author was not allowed to learn much about them.

G. W. B. HUNTINGFORD

Ethnographic Survey of Africa: East Central Africa, Part XIII: The Western Lacustrine Bantu (Nyoro, Toro, Nyankore, Kiga, Haya, and Zinza, with sections on the Amba and Konjo). By Brian K. Taylor. London (Internat. Afr. Inst.), 1962. Pp. xii, 159, map. Price £1 1s.

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This volume of the Ethnographic Survey will interest the African historian as well as the anthropologist. Mr. Taylor has given a detailed account of the early history of most of the tribes and has devoted particular attention to correlating the versions given by the Nyoro, Toro and Nyankore of the traditions concerning the Cwezi and Bito dynasties. So complex a question merits a more informative map and might perhaps have been supplemented with further references to archaeological work undertaken in recent years.

Traditional society is fully described—though there are inevitable lacunae in the information on the kinship systems of the Konjo, Nyankore, Haya and Zinza—and there is a workmanlike account of contemporary conditions.

Technology is dealt with in the sections on economic organization and institutions. A full range of activities is given but, on occasion, the author's system of classification by sub-sections—kinds, methods, means, etc., of production—makes it difficult for him to give a continuous description of any technical process of more than one stage. To the uninitiated, it must be singularly unevocative of the salt industry at Kibiro to read the isolated statement that 'Salt-makers used sand and an assortment of pots' (p. 32).

VALERIE VOWLES

L'urbanisation de l'Afrique noire: son cadre, ses causes et ses conséquences économiques, sociales et culturelles.

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By P. Verhaegen. *Enquêtes bibliographiques IX, Centre de Documentation Economique et Sociale Africaine*. Brussels, 1962. Pp. 387. Price F.B. 300.

Dr. Verhaegen has brought together a most useful bibliography of 2,500 items available in Belgian libraries. Almost inevitably, there are gaps in the coverage of the English-language material while

some very peripheral references have found their way in. There is a growing need for more selective bibliographies on African topics of the kind which *Current Sociology* has been producing, but Dr.

Verhaegen's work will be of great value to such future bibliographers.

MICHAEL BANTON

EUROPE

The Prehistoric Peoples of Scotland. Edited by Stuart Piggott. London (Routledge & Kegan Paul), 1962. Pp. ix, 165, 8 plates, 16 text figs. Price £2

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This is a volume in the series of Studies in Ancient History and Archaeology, under the general editorship of the late F. T. Wainwright. In it is brought together a series of lectures given to the Scottish Summer School of Archaeology at Edinburgh in 1955. Archaeologists from all parts of the British Isles will welcome it as a thoroughly authoritative commentary upon the present state of affairs in Scottish prehistory.

Five scholars have contributed to this volume. Professor Atkinson and Dr. Daniel discuss the pre-neolithic and neolithic colonization, tribute being paid to the work of A. D. Lacaille on the post-glacial hunter-fishers who settled in Scotland in the period 5500-3000 B.C. Atkinson stresses the influence of Yorkshire as the source of the first Scottish farmers, his distribution map suggesting the coastal routes which carried Windmill Hill cultures to north-east Scotland—including four earthen long barrows—with a second movement north-west to the Solway Firth. Of great interest are the distribution patterns made by various classes of secondary neolithic objects. All suggest immigration from England. Dr. Daniel has summarized the now well established sequence of megalithic tomb-building. He argues, however, for a direct Cotswold-Severn origin for the gallery graves, since new dating methods have established that the south French sites are too late to be prototypes of the Scottish gallery graves; and the excessively elongated mounds of both Scottish and Cotswold-Severn tombs are now stressed. The history of megalithic studies in Scotland is particularly well described.

Students will welcome Professor Piggott's contribution on the earlier Bronze Age since it represents one of the first printed accounts in England of the complex movement from the Rhineland and Low Countries which produced our three main types of Beaker. The suggestion that Food Vessels represent, in graves, the female counterpart of the Beakers in men's graves is interesting.

T. G. E. Powell's account of the Iron Age settlements begins with a lengthy summary of the development of the Celts in Europe. He is an advocate for Urnfield movement into east Scotland, represented by 'flat-rimmed pottery'—which Powell would like renamed 'Covesea ware' after a well-known cave find. Powell has little new material to fill the gap between these early settlers and the increasingly large groups of Celts who built vitrified forts in the first century B.C., monopolizing the best territory so that the later broch-builders had to be content with land north of the Great Glen.

The last contribution, by C. A. R. Radford, links the Iron Age with the beginnings of documented Scottish history. It throws much light on a notoriously difficult period.

This book is illustrated by eight half-tone plates, some of them unusually attractive, and 16 distribution maps incorporating a wealth of new material. Perhaps the editor should have insisted upon a uniform style here. The symbols on fig. 13 are too small. There is also a bad misprint on p. 140. NICHOLAS THOMAS

The Songs of Homer. By G. S. Kirk. Cambridge (U.P.), 1962. Pp. xiv, 424. Price £2

261

In this compendious work the author ranges over all the main aspects of Homeric scholarship, historical, linguistic and literary. He reviews searchingly the most important recent work and theory and advances his own somewhat cautious conclusion. The first part of the book is concerned with Mycenaean history, and particularly with the revelations of the decipherment by Ventris and Chadwick of the Linear B texts. Mr. Kirk is clearly

worried by the small amount of convincing Greek which the tablets have been made to yield. Even so, he accepts that the decipherment into Greek is essentially correct, adding, however, the remarkable afterthought, 'though there is still a chance or two in a thousand that it is not' (p. 24). He takes the orthodox view that Greek speech entered the Aegean in the Middle Helladic period and that Knossos had fallen to Mycenae by the fifteenth century B.C. But he admits the difficulty of explaining the sack of that city about the year 1400.

In the second part, the nature of oral poetry is examined, with special reference to the work of Parry and Lord in Yugo-Slavia. The limitations of this approach are admitted, and the differences of style and construction in the two traditions emphasized. Nevertheless, something can be learnt from the modern Balkans about the length of the memory of oral poetry. In the third part of this book the author reviews what little is known about the oral epic in early Greece. If only because of Homer's ignorance of Mycenaean bureaucracy and chariot tactics, he is extremely sceptical of any significant survival of Mycenaean epic poetry. On the other hand, he mistrusts the archaeologists' negative outlook on the Dark Age and sympathizes with the views of the Chadwicks and Bowra on the creative possibilities of this period. Part IV consists of a lengthy survey of the controversy of the analysts and the unitarians. On this question the author adopts an intriguing compromise; the poems, he thinks, are the work of two geniuses, one of whom composed the Iliad, the other the Odyssey. There follows an account of the mode of transmission of the poems during the two centuries between their composition and their committal to writing; and, finally, a perceptive summary of their literary qualities. In general the author is shy of extreme opinions and prefers to take a balanced view. This may bring him near the truth in some issues, but in others a compromise seems uneasy and unconvincing.

W. C. BRICE

The Festival of Lughnasa: A Study of the Survival of the Celtic Festival of the Beginning of Harvest. By M. MacNeill. Irish Folklore Commission. London (O.U.P.), 1962. Pp. xi, 697, 16 illus., map. Price £4 4s.

262

Lughnasa was one of the quarterly feasts of ancient Ireland. Its widespread survival escaped attention because the celebrations shifted from the Eve of and the first day of August to various Sundays in July and August and were 'known by a great variety of names,' among which *Domhnach Chrom Dubh* was a commonplace in the twelfth century. Lughnasa was the most joyful feast of the year, as 'the rural community reached again the threshold of plenty.' The first fruits were eaten (in recent times: the first potatoes); the people assembled at traditional sites or went on pilgrimage to mountains, lakes, rivers and wells.

A ninth-century glossary defines Lughnasa as 'an assembly held by Lugh,' the favourite, bright, 'many-skilled' god, Crom Dubh 'the dark bent one,' who is not mentioned in Irish mythology, emerges from the author's laborious investigations as the chief god of the pagan farmers. In the modern popular traditions collected by the Irish Folklore Commission, Lugh has completely disappeared and either St. Patrick or St. Brendan triumph over Crom Dubh. The author concludes that Lugh was credited with the victory over Crom Dubh before he was replaced by the Saints. This ingenious assumption is, indeed, an important contribution to Celtic folklore! The evidence does, however, not yet warrant the interpretation of the Gaulish sculptures of the mounted cavalier as representing 'such a myth as the triumph of Lugh over Crom Dubh' (Plate 13). The identification of the three-faced head from Corleck Hill as Crom Dubh (p. 426), without any references whatsoever to the considerable literature on three-faced gods, seems also far too bold.

The site of the great assembly of Leinster, which commemorated Carman 'alive in her narrow cell,' is disputed. Although the author favours on literary grounds a site near the River Barrow (pp. 339f.), there should be at least a reference to Ó Riordáin's excavation of a young woman who was buried alive on the Curragh, Co. Kildare (*Proc. R. Ir. Acad.*, Vol. LIII, pp. 249ff.).

Noteworthy are the statements about the Puck Fair at Killorglin (pp. 289ff.) and above all the explanation of the foreign origin of the famous story of St. Patrick's expulsion of snakes from Ireland (p. 74). It obviously derives from the legends about St. Honoratus, the founder of Lerins.

ELLEN ETTLINGER

Agricultural Transport in Wales. By J. Geraint Jenkins. Cardiff (Nat. Mus. of Wales, Welsh Folk Mus.), 1962. Pp. 107, 31 plates, text figs. Price 7s. 6d.

263

In writing this museum guide and catalogue, Mr. Jenkins must have found his task difficult and slightly unsatisfying. It is a pity that financial resources did not permit a more extensive work and one more worthy of the author's careful research. He seems to have lacked co-operation with someone more experienced in the Welsh language. It was an opportunity missed. One would have liked to have seen a book produced in size, style and cataloguing details more comparable with *Welsh Folk Customs* published by the same museum three years back and costing only three shillings more than the present publication. The latter has the look of something brought out in a hurry and bound with restrictions, a criticism borne out by spelling mistakes which one would not normally expect to find in a publication sponsored by the National Museum of Wales.

Mr. Jenkins has tried hard to write from the Welsh viewpoint but was forced, as in the sections devoted to harness and wheelwrighting, to fall back on English, and often English-dialect, technical terms. How interesting and how valuable comparisons would have been. It would have been useful, too, to have had more historical background obtained from such sources as farm inventories.

Despite his restrictions, Mr. Jenkins has given us a useful addition to the bibliography of British ethnography. His book should be read in conjunction with his earlier work, *The English Farm Wagon*, published in 1961 (MAN, 1961, 252).

Agricultural Transport in Wales covers human portage (ranging from carrying sticks to wheelbarrows), pack animals, sledges, carts, wagons, harness, farriery and wheelwrighting. The chapter dealing with the last subject is confined to wheel-making, the reader being referred to the author's earlier book on *The English Farm Wagon* for further information. As the catalogue of museum exhibits includes tools used in other sections of the wheelwright's trade, the arrangement tends to be confusing.

There is no index. Illustrations are adequate. The line drawings of the wheelwright's tools are a great improvement on photographs. It would have been better if the farrier's tools had also been drawn.

THOMAS W. BAGSHAW

British Towns: A Statistical Study of Their Social and Economic Differences. By C. A. Moser and Wolf Scott. Univ. Coll. London, Centre for Urban Studies, Report No. 2. London (Oliver & Boyd), 1961. Pp. 169. Price £1 10s.

264

This book will have many uses. The general reader will be able to make comparisons between towns he knows (or thought he knew) and see how they differ from others of the 164 towns of over 50,000 in England, Wales and Scotland in size, social class, rate of growth, age and sex distribution, health, education, occupation, housing, illegitimate births, voting habits, etc., in all about 60 different characteristics. The sociologist, choosing a town for a survey, will discover here the sort of place he is dealing with. The librarian, liable to be plied with awkward questions by market researchers, will keep it on his reference shelf alongside Whitaker and the student of statistics will find it a useful example of statistical method.

In addition to setting out the data, the authors have used a com-

puter to determine the correlations between various characteristics—this was worth doing for the record, though the results may not be startling. No doubt it will be the prototype of an increasingly useful handbook as more statistics become available. For example, it might well include ratable values now that we have a generally uniform system, and many people would like to see results for smaller towns if reasonable data are available. How far will this book be of value to social anthropologists? Why does Torquay have low ratings for social amenities such as piped water and W.C.s. while Crewe, a town of the same size with a much lower social-class index, is better equipped? Why do middle-class towns have a higher level of retail spending per capita than upper-class and lower-class ones? Why is the illegitimate birth rate falling in Edinburgh and Cambridge but rising slightly in Oxford and Bristol? This book can, to the curious and patient reader, throw up differences which may be worth exploring.

H. E. WADSWORTH

The Evolution of a Community: A Study of Dagenham after Forty Years. By Peter Willmott. London (Routledge & Kegan Paul), 1963. Pp. xiv, 153. Price one guinea

265

This is a study of the L.C.C. Housing Estate of Becontree, of which rather more than half is in the borough of Dagenham and the remainder in the boroughs of Barking and Ilford. It is thus not a community in the administrative sense nor, it appears, in any other, for the inhabitants have no interests or activities in common. About 90,000 in number, all but a very small percentage are of the working class, about half being skilled craftsmen. Their social life is extremely limited in its scope; very few belong to any club or society or attend any church, and it seems that they rarely speak to anyone but near relatives and neighbours. They take no interest in the arts or in education, and very little in politics, though they all vote Labour. We are not told whether they play bingo or indulge in any form of game or sport, nor what is their attitude to crime. In general they seem to be a tolerant, friendly, easy-going set of people, contented with their lot, but any who wish to get a little more out of life move elsewhere.

The drabness of their lives is due partly to the failure of the L.C.C. to provide community centres of any kind and partly to the inability of the working class to organize any kind of social activity. Mr. Willmott contrasts Dagenham with the largely middle-class suburb of Woodford, in which social activities flourish, in some of which the working class participate, and in which the education of the working-class children benefits from the example of the middle-class children. The picture of Dagenham, with its rows of tidy houses occupied by people without an idea or an ambition, is a depressing one.

RAGLAN

Vasilika: A Village in Modern Greece. By Ernestine Friedl. New York (Holt, Rinehart and Winston), 1962. Pp. xiv, 110, 4 plates, map, glossary. Price 10s.

266

This is a very excellent account of village life in contemporary Greek society with its many ancient historic roots. Dr. Friedl shows amazing knowledge of every aspect of the affairs of Vasilika acquired obviously through great sympathy and insight into the ways and thoughts of the inhabitants coupled with the confidence in her person which she succeeded in inculcating to the villagers.

She presents an able synthesis in her book of the environmental land resources, the cultivation of cotton, the division of labour, concepts of cleanliness and order at home, the characteristic dowry system, religious ceremonies and festivities. She also shows how the traditional pattern of village life in Greece is being radically modified under the influence of the towns, the urban attraction of which is practically irresistible, especially for the young men.

As always in Greece, there is a struggle everywhere: with nature, within the family, with the authorities, between individuals. But somehow here, as elsewhere in the country, the people are sustained and revitalized by the continual contest, which appears to them as an absolute necessity of living.

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- Thursday, 7 February, 8.15 p.m. PROFESSOR F. E. ZEUNER: *Viking Settlements and Greenland Eskimos* (with colour film and slides).
Thursday, 21 February, 8.15 p.m. DR. L. S. B. LEAKEY: *In Search of Early Primates* (film).
Thursday, 7 March, 8.15 p.m. PROFESSOR C. R. BOXER: *Some Aspects of Race Relations in Colonial Brazil*.
Thursday, 14 March, 2.30 p.m. Colloquium: *House, Settlement and Social Structure*.

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| Thursday, 14 March, 2.30 p.m. | Colloquium: <i>House, Settlement and Social Structure.</i> |
| Thursday, 4 April, 2.30 p.m. | PROFESSOR G. R. WILLEY: <i>Archaeological Excavations at Altar de los Sacrificios, Guatemala</i> |
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Thursday, 2 May, 8.15 p.m. PROFESSOR J. N. SPUIHLER: *The Genetical Interpretation of Tabun and Skhul*
Thursday, 16 May, 2.30 p.m. Colloquium: *The Study of American Indians*
Thursday, 30 May, 5.30 p.m. DR. M. I. FINLEY: *Between Slavery and Freedom*

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(with a text figure)

Paul Hockings, M.A.

Some Aspects of Folk Art in Northern Rhodesia

(with 12 text figures)

J. H. Chaplin

Proceedings of the Royal Anthropological Institute

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Shorter Notes

Senoi Temiar : Dermatoglyphic Data

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Thursday, 6 June, 8.15 p.m. PROFESSOR S. H. F. LLOYD: *Urartu and Environment*
Thursday, 27 June, 2.30 p.m. ANNUAL GENERAL MEETING
PRESIDENTIAL ADDRESS: *Discipline in Social Anthropology—Precept and Practice in Britain.*
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(with a text figure)

Dr. K. P. Wachsmann

Multiple Human Figures in Western Papuan Gulf Art

(with eight text figures)

Douglas Newton

Proceedings of the Royal Anthropological Institute

'Studies in Kinship and Marriage' for Mrs. Seligman's Eightieth Birthday

Shorter Notes

Tooth-Mutilation in West Africans (with five text figures)

D. H. Goose

Proverbs: The 'Single-Meaning' Category

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Newly Discovered Stone Figures from the Yoruba Village of Ijara, Northern Nigeria (with two text figures)

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Thursday, 6 June, 8.15 p.m.

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ANNUAL GENERAL MEETING

PRESIDENTIAL ADDRESS: *Kinship and Politics in Tswana History.*

„ „ 6.00 p.m.

PROFESSOR E. E. EVANS-PRITCHARD: *The Zande State (Huxley Memorial Lecture at University College)*

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(with nine text figures and two tables)

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Shorter Notes

Notes on Some Animals in Zandeland

Professor E. E. Evans-Pritchard, F.B.A.

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Obituary

K. P. Chattopadhyay: 1898-1963

Professor J. H. Hutton, C.I.E.

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Ploughs (Ards) of West Nepal

(with six text figures)

Robert Aitken

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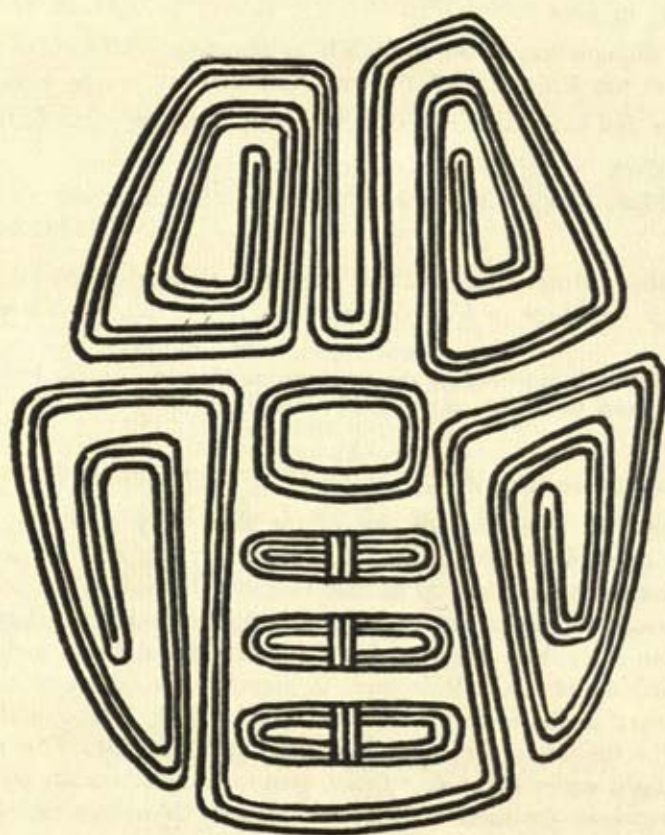
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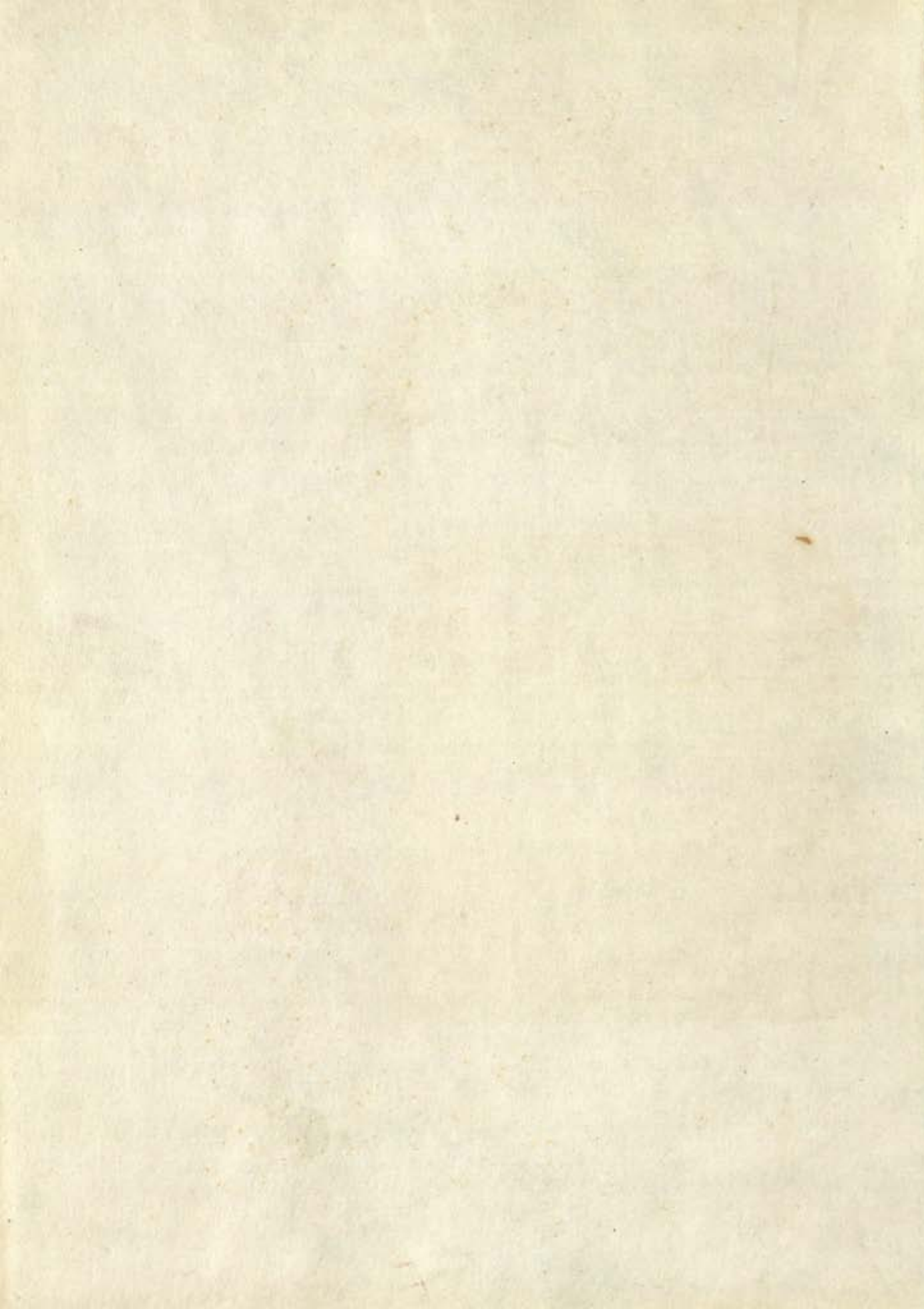
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