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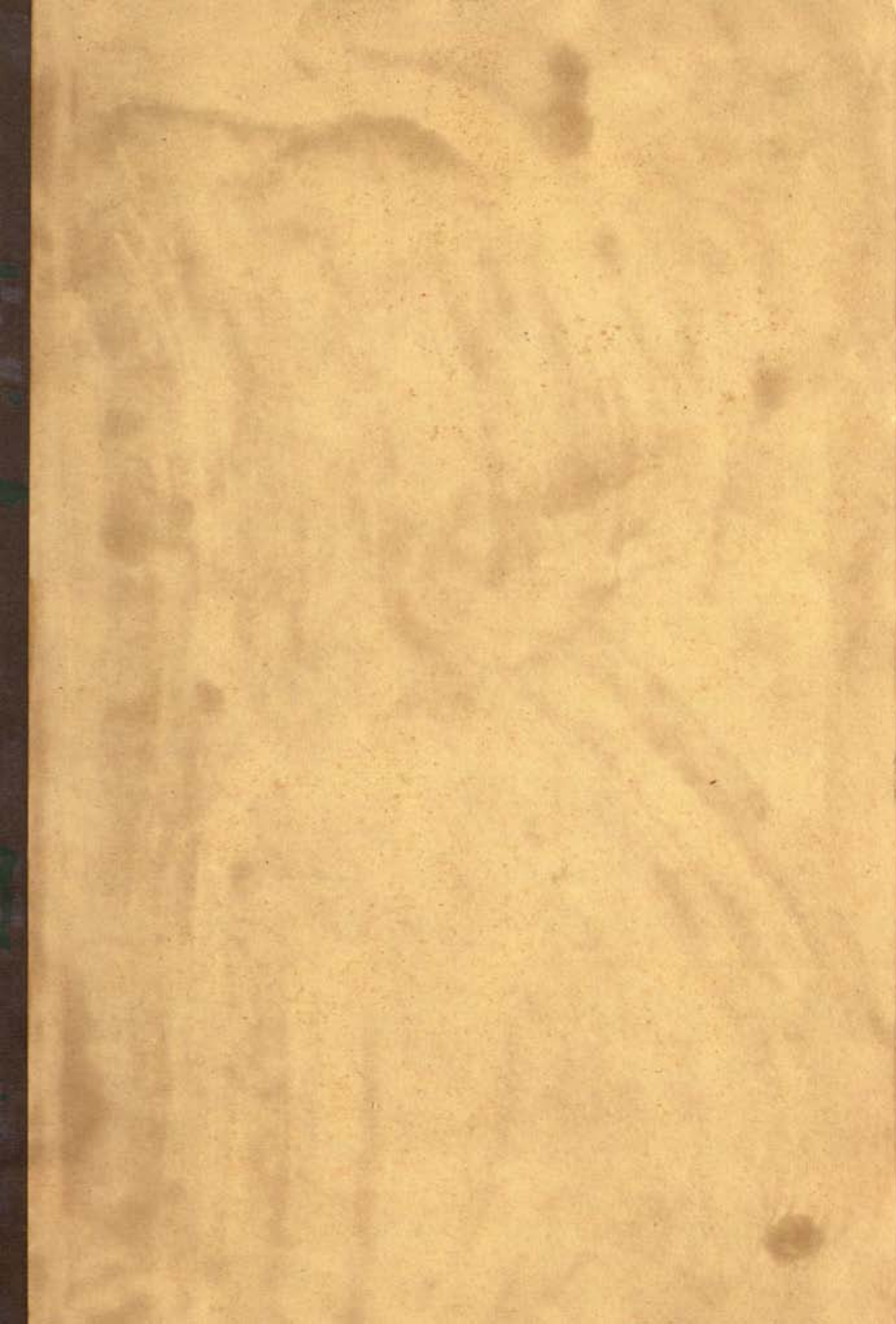
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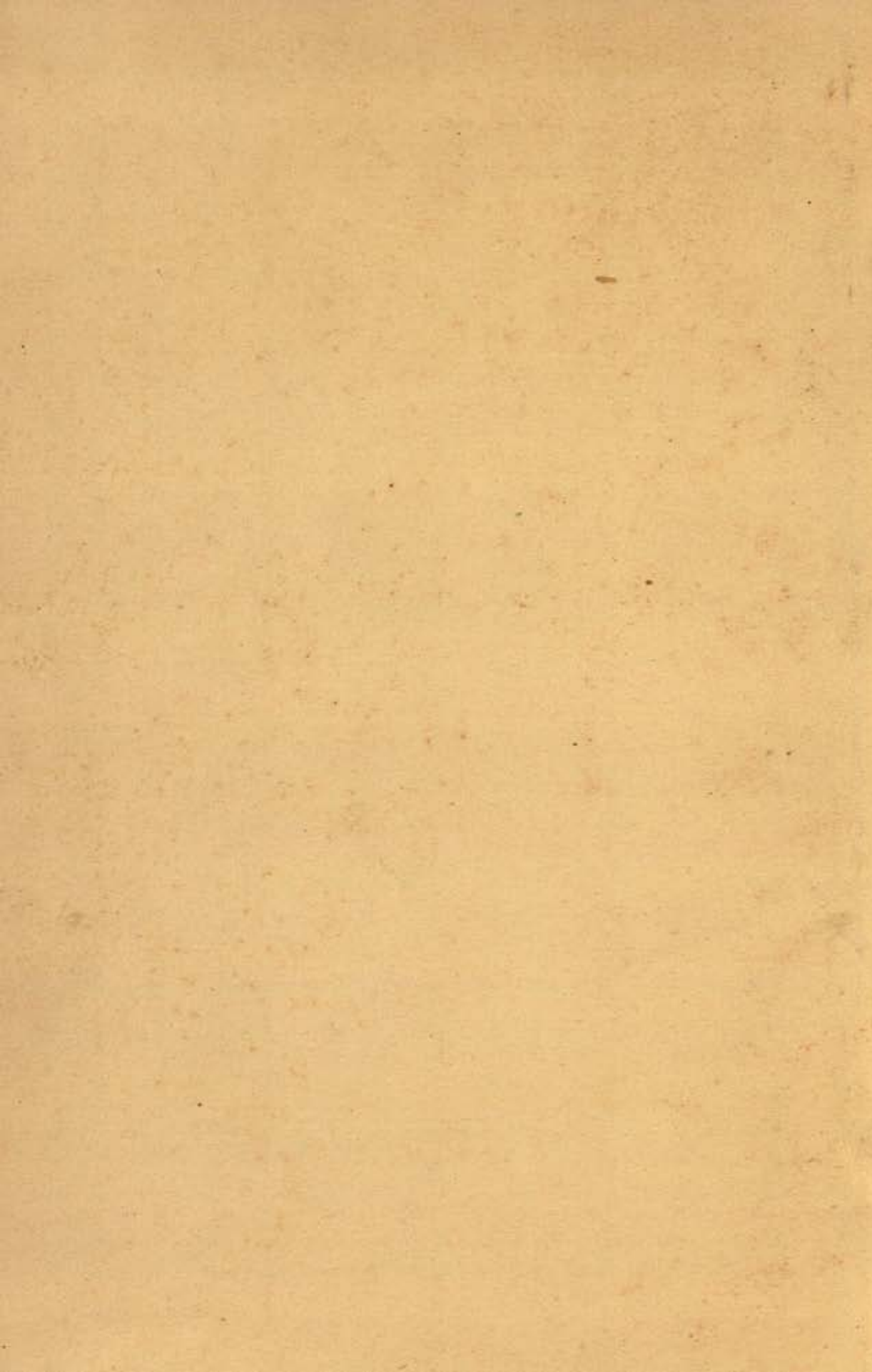
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# MAN

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GREAT BRITAIN AND IRELAND.



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STONE BULL FROM SOUTHERN INDIA.

# MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE.

PUBLISHED UNDER THE DIRECTION OF THE  
ROYAL ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

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## ORIGINAL ARTICLES.

With Plate A.

India: Sculpture.

Joyce.

**Note on a Stone Bull from Southern India in the British Museum.** By T. A. Joyce, M.A., O.B.E. (With Plate A.)

The British Museum has recently acquired a fine example of Indian sculpture in the shape of a bull, measuring about 3 ft. 3 in. long by 2 ft. 9 in. high by 1 ft. 9 in. broad. The material is pale grey granite, and the animal, which is of the usual humped variety (see Pl. A), is in a couched position, inclining slightly to the right, the right foreleg raised, so that the hoof rests upon the ground. As a work of art, its qualities are so obvious that there is no need to insist upon them. The bold simplicity of the outlines and the sympathetic tenderness of the contours make a very effective appeal to the eye. The history of the specimen is interesting so far as I have been able to trace it. It belonged originally to the collection in Stowe House, then the seat of the Dukes of Buckingham. Presumably it must have been brought over at a comparatively early period by a member of the Buckingham family. At the dispersal of the collections, it was purchased by a private individual, from whose possession it has now passed into that of the British Museum. The bull, of course, is regarded as the *vahan*, or "vehicle," of the god Siva, and appears frequently in Indian art as his emblem. The figure, which appears to be Southern Indian in origin, and to be of fourteenth century workmanship, is now on exhibition in the Gallery of Indian Religions in the British Museum.



FIG. 1.—STONE BULL FROM S. INDIA.

T. A. JOYCE.



as if he were many. But when we think it over we may begin to question whether the custom does not seem natural only because we are so used to it. To Germans it seems quite natural to address a man as "they" because they have been brought up that way; to us it seems strange till we are used to it. If it is natural to use the plural when we are being polite, why do some peoples do so and not others? The Greeks did not, nor did the Romans, but the successors of the Romans took to it, whether they got it from the East, like many other things, or from elsewhere. The Fijians use the plural; but not the more highly civilised Polynesian on his right or the more savage Solomon Islander on his left. With us the use of the second person plural has become cheap, and it is the singular that is more respectful and is, therefore, reserved for the Creator: that shows clearly how purely a matter of tradition it is.

It is a good rule first to take expressions, and indeed beliefs generally, in a literal sense and see what will happen. Apply this rule to the present case and the conclusion is that people were originally addressed as many because they were conceived to be many. This may seem absurd at first sight, but in point of fact it is not; for there is nothing commoner throughout the world than incarnation, whether of god, or spirits of the dead, or elves, and suchlike beings; now if a man be possessed by the spirit he is two, and if he is possessed by several he is many.\* It is not without interest that in Fiji a priest in ordinary life is addressed by the nobles as "thou," but when he is approached by them as worshippers of the god who enters into him he becomes "you."

The custom, then, if I am right, arose out of a belief in the doctrine of incarnation, but more particularly out of a special form of incarnation—divine kingship; for the polite plural originally is used only to superiors and therefore cannot have arisen from ordinary possession to which every Tom, Dick or Harry is liable. Secondly, possession is only temporary, whereas kings are permanent incarnations, and therefore always many, not, like our Fijian priests, only when officiating.

It follows that the polite plural will only be found in places penetrated by people whose kings are divine or who have been influenced by people whose kings were divine. It is too much for one man to survey the whole world and apply this test, so I must appeal to others to carry it out each in his own sphere.†

It may be objected that many people who have or have had divine kings do not use the polite plural—for instance, the Greeks, the Polynesians; but we know that all people do not carry the same beliefs to the same conclusions, otherwise there would not be innumerable Protestant sects. The polite plural may be the logical, but it is not the necessary, outcome of the divinity of kings. In history we can only be wise after the event: we can say, "The nineteenth century European has invented electric light because he knows the laws of intensity of electric current and the laws of resistance," but we cannot say, "Any one who knows those laws must have invented electric light"; for it is notorious that great discoverers completely fail to carry out their ideas into what subsequently appear to be very obvious applications. Likewise we can say, "The inventors of the polite plural were led to it by the theory that the king and the other distinguished persons impersonate one or several gods"; but we cannot say, "All people who believed their kings to impersonate gods must necessarily have addressed them as many."

Our own mode of addressing the King bears out my suggestion: we do not speak to him, but to a third something which is called his Majesty. Now if we turn to Lewis and Short's Latin Dictionary we find under *majestas* the following definition: "greatness, grandeur, dignity, majesty; *literally of the gods*; also the condition of men in high station as kings, consuls, etc." Therefore in speaking to a King we address not himself but a divine attribute.

A. M. HOCART.

\* Cf. Hitopadesa 114: *sarvadevamayo 'tithih*, "the guest contains in himself all the gods."

† Besides the languages mentioned, I know of it only in Sanskrit, Pali, Sinhalese, and Tamil.



Africa, East: Dance.

Hollis.

**Dance of Sagara Women, Tanganyika Territory.** *By A. C. Hollis.*

4

The accompanying photographs of a dance of Sagara women in Tanganyika Territory were taken by Mr. H. Hignell, Administrative Officer.



FIG. 1.



FIG. 2

The women advance and retreat, singing and carrying the drum between their legs, and playing on it as they move. This method of carrying the drum while

dancing is believed to be peculiar to the Sagara tribe, who inhabit the country known as Usagara, near Morogoro on the Central Railway, in Tanganyika Territory. It is not known whether this dance has any special significance. A. C. HOLLIS.

## Obituary.

Temple.

**William Crooke, D.Sc., Litt.D., F.B.A., C.I.E.** By Sir Richard C. Temple, Bart., C.B., C.I.E.

5

On 25th October, 1923, death somewhat suddenly claimed another searcher of long standing and great distinction into "Things Indian," as he would have put it himself, for to my knowledge it is quite 40 years since Dr. Crooke began to publish his very long series of books and papers on his researches into many kinds of matters connected with the people of India. During all that period he has been more or less continuously connected with myself, and I feel his death, therefore, as a grievous personal loss.

He was the eldest son of Warren Crooke, M.D., of Macroom, Co. Cork, and was born in 1848, being seventy-five at the time of his death. He belonged to an old Irish family, his younger brother being Col. Sir Warren Crooke-Lawless, C.B., C.B.E., R.A.M.C., of the Coldstream Guards, and Surgeon to Lord Minto while the latter was Viceroy of India, and now House-Governor of the Convalescent

Home for Officers at Osborne, Isle of Wight. William Crooke was educated at Tipperary Grammar School and at Trinity College, Dublin, of which last he was a scholar. He entered the Indian Civil Service in 1871, becoming Collector and Magistrate at various times of the Districts of Saharanpur, Gorakhpur and Mirzapur in the United Provinces of Agra and Oudh. He retired after an uneventful though strenuous official life in 1895. He was not, however, altogether a literary man, for he was a good sportsman and had shot many tigers during his career.



During his service in India and after it, Crooke was a valuable and prolific writer on Oriental matters, and took a great interest in all things connected with the people of India, their habits and customs, their religions and ethics and their ways, and was indeed a master teacher in such things. He was always willing to help in research in these directions in any way open

to him, and loved it for its own sake. But he was in no way pushing and reaped but little reward and recognition, and what of these did come his way came late in life. He became an Hon. D.Sc. of Oxford in 1919, and an Hon. Litt. D. of Dublin in 1920. In 1919 also he was awarded the C.I.E. by the Indian Government, and in the present year he became a Fellow of the British Academy. In 1910 he was President of the Anthropological Section (H) of the British Association and 1911-12 of the Folklore Society, and for years he was an active and valuable Member of this Institute.

The earliest of his publications that I can trace are two notes in the *Indian Antiquary* in 1882, which show the trend of his mind, for they were about the Brahmini Duck and the exorcism of village ghosts, and thereafter he constantly helped me in that journal up to 1912. Indeed, at one time it was proposed that he should be joint-Editor with myself. He was also a welcome contributor from 1883 to the journal I started in the Panjab, the *Panjab Notes and Queries*, and



succeeded me as Editor for a few years when it was converted into the *Indian Notes and Queries*. Crooke was always ready to help periodical and similar publications from his almost unrivalled knowledge of Indian Ethnology, Anthropology and Folklore, and was a constant contributor for many years to the publications of this Institute and of the Folklore Society. He had, in fact, for some years been Editor of *Folklore* at the time of his death. He wrote, in addition, a whole series of articles in the "Encyclopædia of Religion and Ethics" for Dr. Hastings, and contributed from time to time to *Nature*.

Crooke was also an indefatigable Editor of books, producing with great learning and wide reading editions of Yule's "Anglo-Indian Glossary," usually known as "Hobson-Jobson" (1903); Fryer's "New Account of East India and Persia" for the Hakluyt Society (1909); Mrs. Meer Hassan Ali's "Observations on the Musalmans of India" (1916); Tod's "Annals of Rajasthan" (1920); Herklotz' "Qanun-i-Islam" ("Islam in India," 1922). In addition, he had finished editing Ball's edition of Tavernier's "Travels," which I understand is in the hands of the Oxford Press and must now be issued as a posthumous work. Quite lately also he added a valuable note on the Folklore in Sir George Grierson's edition of Sir Aurel Stein's "Hatim's Tales" (of Kashmir).

Crooke did not by any means confine himself to editing, but produced his invaluable "Rural and Agricultural Glossary of the North-West Provinces and Oudh" while still in India, and a whole series of works since his retirement from Government service. In 1896 he issued his well-known "Tribes and Castes of the North-West Provinces," and his "Popular Religion and Folklore of Northern India," following them up with a very well-known book, "Things Indian" in 1906, and "The Natives of Northern India." He also wrote with Mr. H. D. Rouse "The Talking Thrush," a collection of folk-tales, for the Folklore Society.

It will be perceived, then, that, though he was never in the public eye, he lived a very busy life all his days, bent on forwarding a real knowledge of the people among whom he had worked as an official, to their benefit and to that of the Government which he had so faithfully served. He was a sound scholar and in every way a learned man, and on many an occasion I have found him willing to let others share the knowledge he had laboriously acquired and very ready to co-operate in the solution of the conundrums constantly arising about the people of India and their ideas: a very useful life that was a credit to himself and of great advantage to the nation. And it may be added that the value of his work cannot but be a solace to his widow and the sons he has left behind him.

Crooke married in 1884 Alice, the youngest daughter of Lieut.-Col. George Carr, of the 2nd Madras Native Infantry, and had five sons. The eldest died as a child. The third son, Captain E. H. Crooke, a scholar of Brasenose, Oxford, was killed in France in 1916; and his fourth son, Lieutenant H. N. Crooke, R.E., was also killed in France in the same year. His second and fifth sons survive him. The former, Mr. R. H. Crooke, a scholar of Emmanuel College, Cambridge, has been in the Home Civil Service since 1912 (Ministry of Health), and the latter, Mr. R. L. Crooke, is still at Cheltenham College, where his three brothers were also brought up, their father having spent all his retirement at Charlton Kings, near Cheltenham.

R. C. TEMPLE.

### Mediterranean: Archæology.

A Pottery Decorative Design of the Hallstatt Period. By  
S. Casson, M.A.

Casson.

6

There has been so little systematic publication of Greek pottery of the Geometric period that the attribution of specialised Geometric design types to definite cultural areas is difficult and hazardous. Local stylistic variations



are perceptible, but the *origin* of some of the principal and most frequently recurrent decorative designs is, for the most part, obscure. Certain elements of decoration go back to Mycenaean times, but they are few and unimportant, and it is remarkable that of all the popular design types of the Mycenaean potters which might well have persisted, only a very few, such as the stylised lily-blossom, have survived into the Geometric period.

Perhaps one of the most frequent and, as far as stratigraphic evidence has been able to establish them, the earliest\* Geometric decorations are the compass-drawn concentric circle and concentric semi-circle. The former thrives most in Cyprus, the latter in Macedonia, Thessaly, Boeotia, Crete and the Cyclades. It is found, however, without being the prevalent type, on most other Geometric sites.

The concentric semi-circle is, perhaps, the most effective of all geometric designs for use on small vessels. *Skyphoi*, and all forms of goblet, can be conveniently decorated with one or two semi-circles for each side. They are both expeditious and effective. A good instance comes from Macedonia, from a cemetery of the Iron Age which I excavated in 1921 and 1922.† Larger and later vessels with the same design are the most popular type of Geometric ware met with in Macedonia—in fact the concentric circle and semi-circle form almost the only *répertoire* of the northern Geometric artist. Thessaly also shows an almost exclusive preference for these designs in Geometric times.‡

Unfortunately we have no criterion for a relative chronology of Geometric vases so decorated. It is impossible to say whether the Cretan and southern examples of this pattern are earlier or later in date than the northern. We are driven to search for the origin of the design in lands adjoining those where it seems to have flourished most. In this context it is remarkable that the concentric semi-circle is found as a design for small goblets and bowls in the earliest phases of the Hallstatt culture. The bowl shown in Fig. 1 comes from a settlement of the so-called "Hallstatt A" period at Gösing on the Danube near Wagram.§ It is, like all Hallstatt ware, hand-made. The decoration is engraved. The effect and the artistic conception is precisely that of the Macedonian painted *skyphos* (Fig. 3). It is not a solitary instance. From a large site at Statzendorf (between St. Polten and Krems), also on the Danube and of the first Hallstatt period, comes a whole series of small cups,|| all of which form the closest possible parallel



FIG. 1.—VASE FROM GÖSING.

\* Schweizer, "Untersuchungen zur Chronologie der Geometrischen Stile in Griechenland," I, Pl. IV, and *B.S.A.* XIII, p. 124. Concentric circles at Sparta occur immediately after simple hatched patterns.

† First report published in *B.S.A.*, XXIV, p. 1, ff. I have not yet published the grave in which this vase was found, since it was opened in 1922.

‡ Wace and Thompson, "Prehistoric Thessaly," p. 211, fig. 146, and p. 213, fig. 148.

§ I have to thank Dr. Leonhard Franz of the Prähistorische Institut, Vienna, both for this photograph and for permission to reproduce it. The vessel is now in the collection of the Institute. I am indebted to Prof. O. Menghin for permission to publish it.

|| *Mitth. des prähist. Kommission der Akad. der Wissenschaften* (Vienna), II, 1908, figs. 7, 11, 27, 31, 32, 76, 107, 114, 150, 161.



to the painted ware. These vessels are neither occasional nor rare, but clearly a common type in the earliest period of Hallstatt culture. Fig. 4 shows another example\* found near Sommerein-am-Leithgebirge in Lower Austria, and now in the collection of A. Serasin at Orth-an-der-Donau. It persists also to a later period. Some fine examples of larger bowls of a later phase of Hallstatt culture, decorated with two groups of concentric semi-circles on the sides and small concentric circles in the field, come from near the Roman town of Carnuntum† on the Danube, near the modern Petronell. They are now in the Carnuntum Museum at Deutsch-Altenburg.

The same design is found, again, in the wares painted with graphite paint of the second Hallstatt period ("Hallstatt B"), but by the last Hallstatt period it is no longer in use.

But "Hallstatt A" is not necessarily the earliest date at which these designs appear. They may have come to the potters of that period from the earliest

culture of the copper and salt miners of the Salzkammergut. The late Neolithic or Copper Age wares of the Mondsee and the Attersee use the concentric circle in a way which can leave no doubt as to the local popularity of these designs in early times. The valleys of the Salzberg must have been well populated from the end of the Neolithic period, when the value of the local copper mines first became evident. The northern elements in the pottery of the Salzberg lakes is clear, and there seems no hiatus or break either in race or continuity of habitation between

these earlier peoples and those of the Hallstatt period, at least in its earliest phase. The concentric circle accompanies them almost to the end, and goes out of use about the seventh century B.C. Höernes has already pointed out the remarkable parallels between the designs of the Mondsee pottery and those on Cypriote vases of the Bronze Age,‡ and between the wares of Laibach and Mycenæan wares—in short, between the Danube area and the Ægean—before the Iron Age. Some of these



FIG. 3.—PAINTED VASE FROM MACEDONIA

comparisons, perhaps, may be fortuitous and many unconvincing, but there is clearly a northern element in Mycenæan and Cypriote design of the late Bronze Age. In the Iron Age the connection between Ægean and Danube is direct and clear. The Macedonian plainlands at the head of the Thermaic Gulf, the natural port of



FIG. 2.—VASE FROM GÖSING

\* I am indebted to Dr. Franz for this photograph.

† "Führer durch Carnuntum," by Kubitschek and Frankfurter, 1922, p. 37, fig. 17.

‡ "Les premières Céramiques en Europe centrale" (Monaco, 1908), pp. 23-29.



Central Europe, stood at one end of the great Vardar funnel. Across these plainlands are spread numerous Iron Age sites\* in which is a Hallstatt culture which has come into touch with other elements and has entered an area where the art of pottery-making has had a long and distinguished past. Finer wares replace the crude Hallstatt vessels of the Danube. But the same designs and elements of the same shapes survive. Side by side are found the traditions of the Bronze and perhaps of earlier days in the Ægean area.† Pottery shapes of Anatolia also appear in the midst of this curious medley of influences. The gradual separation and discernment of the various strata of influence that existed in Macedonia in the first quarter of the last millenium B.C. is a problem that yet awaits solution.



FIG. 4.—VASE FROM SOMMERREIN.

The chronology of the development of this concentric circle and semi-circle design on pottery is clear. "Hallstatt A" period is fixed between 1100 and 900 B.C. The earliest date for the Geometric wares of Greece proper which are decorated with concentric circles or semi-circles cannot be earlier than 1100 B.C., and is more likely to be about 1000-900.‡ Examples from Sparta hardly precede 900 B.C. and may be rather later. Boeotian, Attic, and Thessalian examples cannot be placed much earlier. The Ægean can produce no example of the design on a vessel of the Iron Age of an earlier date than the Gösing, Sommerrein, and Statzendorf cups. It is in the North, then—in the Danube region—that the origin of this persistent design must be sought.

S. CASSON.

## REVIEWS.

### Africa, Central: Linguistics.

Sanderson.

*A Yao Grammar.* By Meredith Sanderson, M.R.C.S., F.R.G.S., F.R.A.I., Nyasaland Medical Service. London (S.P.C.K.): 1923. Pp. 211. 7½ × 5½. 10s. 6d. net.

The Yao language—a beautiful, melodious, and from a philological point of view, extremely interesting one—has hitherto received insufficient attention. Though it was, 30 years ago, spoken by many people in the neighbourhood of Blantyre, the native Chinyanja is now the predominant speech, and is the only one considered necessary for Government officials in Nyasaland. But the north-east corner of the Protectorate, about Mount Mangoche, is largely, if not exclusively inhabited by Yaos; the real centre of the tribe lying beyond the border, in Portuguese territory. This centre, Dr. Sanderson informs us, is "the hill Yao, near Likopolwe," but they extend all down the Lujenda valley into Tanganyika Territory, where the Universities' Mission (in 1876) established a station among them at Masasi.

Dr. Sanderson says: "The Yao language has affinities with some of the neighbouring tongues, more particularly with those of the north and east—Chingonde [Nkonde, Konde], Chi-Kinga and Chi-Makua." There may be some objection to including Makua in this list, as its very striking phonetic peculiarities (most nearly paralleled in the Suto-Chwana group) constitute a sharp distinction. Ngindo would more fittingly be placed in this connection, and Makonde, north of the Ruvuma, is remarkable as being in some respects a connecting link between Yao and Makua.

\* e. g. Pateli (on Lake Ostrovo), Verria and the Haliaemon valley, Ghevgheli, Dedeli and Chauchitsa, in the Vardar valley and other sites.

† See B.S.A., XXIV, p. 28.

‡ Schweizer (*op. cit.*) dates them rather earlier.



Of previous literature dealing with this language, we have the collections of Krapf and Steere, and the "Handbook" of Dr. Hetherwick, which, excellent as it is, is chiefly useful for the Blantyre-Mlanje district.

Dr. Sanderson has made a thorough phonetic study of the languages, and, though he has not (doubtless for good and sufficient reasons) seen his way to adopting the alphabet of the International Phonetic Association, his introduction (in which Miss Nixon Smith has collaborated) gives a very satisfactory analysis of the sounds. The only really scientific attempt hitherto made in this direction is that of Professor Meinhof (*Mitteilungen des Seminars für orientalische Sprachen*. Berlin, 1908, pp. 132-73)—an extremely valuable study, though not made, like Dr. Sanderson's, in the Yao country itself, but at Zanzibar and Dar-es-Salaam, with the help of several Yao informants. An interesting point to note is the vexed question of the Yao *s* sound. This had long proved a puzzle—some earlier observers taking refuge in the vague statement that it is intermediate between *s* and *z*. Dr. Sanderson describes it as differing "from the English *s* in being produced further back; the tip of the "tongue is curled back till it nearly touches the hard palate." This is in complete accordance with Meinhof, who calls the sound "cerebral *s*" (*ʃ*). It is never voiced. *F* and *v* do not occur in this language, and the sound hitherto written *w* is really the bilabial fricative (Meinhof's *v*), for which Dr. Sanderson prefers the symbol *w̥*. Dr. Hetherwick has noticed this sound (see "Handbook," 1902, p. 4), but has not distinguished it by any diacritical mark.

Some words, otherwise identical in form, are distinguished by *tone* (p. 7)—a fact to which Meinhof also calls attention. The phonetic changes caused by the nasals—a formidable difficulty in Yao—are very fully and carefully treated. We have no space to discuss the grammatical part in detail, but have no hesitation in saying that this little work is one which neither the practical student of language nor the philologist can afford to overlook.

A. WERNER.

### Peru: Archæology.

Locke.

*The Ancient Quipu or Peruvian Knot Record*. By Leland Locke. Pp. 80.  
59 Plates. (American Museum of Natural History), 1923.

8

This is a book of unusual interest to students of primitive methods of writing and numeration, being an expansion of the author's valuable papers in the *American Anthropologist* for 1912, in which he proved the existence in the quipu of a decimal system of numerals depending on the local value.

In the plates of the present work a large number of ancient quipu are shown, together with keys and detailed readings of two of these, and of two modern specimens. In addition, excerpts are given from the early Spanish writers, some of which have not hitherto been translated into English, and a brief notice of similar reckonings in other countries. Among these, one misses any reference to the Melanesian examples mentioned by Codrington and others, by which days are counted up to one thousand for death feasts.

Professor Locke is, of course, only concerned to elucidate the Peruvian quipu, which he has done to a remarkable degree; but a study of his book brings many interesting questions into view. Thus the modern quipu differ from the ancient in the notation, which is no longer purely dependent on local value, but distinguishes the powers of 10 by differences of thickness in the cord. This is a retrograde step such as might be expected from the extinction of the native culture and the disappearance of the ruling class who anciently had charge of these records. Even the modern quipu are superior to such contrivances in most parts of the world in that they have a means of expressing higher units. The usual form of string record found elsewhere only records simple units, no matter how large a number may be counted, as, for instance, the Melanesians made a knot for each day, and



the Torres Straits Islanders tied a stick in a string for each of their amours. This last example is interesting in another way, because the numbers recorded on the strings greatly exceeded the highest numbers which could be expressed by their language, just as with our own notation we can express numbers beyond the reach of our language.

The principle of numeration by local value has been described as one of the greatest mathematical advances ever made, and it seems to have only been invented once in the Old World. That being so, it is remarkable that it should have been used in the New World by the Maya, who had attained the complete application of the principle by having a sign for zero, and that it should have been nearly perfected also by the Inca, who left a blank space on the quipu instead of a zero. It is improbable that so great an advance was twice reached independently, and its attainment in Peru seems to confirm the view of Mr. P. A. Means that in early pre-Incarial times there was some cultural influence there from Central America. The fact of the Maya notation being vigesimal, and the Inca decimal, is no objection to this. As Rivers has well shown, one culture may influence another dynamically by suggesting an idea although the result may be quite different from the original.

RICHARD C. E. LONG.

### Britain: Archæology.

Collingwood.

*Roman Britain.* By R. G. Collingwood, F.S.A. The World's Manuals. Oxford University Press. 1923. Pp. 104. Fifty illustrations and one map. Price, 2s. 6d. net.

9

This charming little essay gives an admirable outline of the history of Britain during the Roman occupation and an account of the state of the country at that time. It is not intended to be a description of all the Roman remains in the country, but it gives the latest views of that band of workers who are following in Haverfield's footsteps, and so removes many current misconceptions. H. P.

### PROCEEDINGS OF SOCIETIES.

#### Proceedings of Societies.

#### Pan-Pacific Science Congress.

**Anthropology at the Second Pan-Pacific Science Congress, Australia, 1923.** By A. C. Haddon, D.Sc., F.R.S.

10

The second meeting of the Pan-Pacific Science Congress was held in Melbourne from August 13 to 22 and in Sydney from August 23 to September 3; the first meeting was at Honolulu in August, 1920. The sectional delegates from England were DR. HADDON and MR. W. J. PERRY. DR. HADDON was appointed Chairman of the Section of Anthropology and Ethnology at both meetings, MR. E. L. PIESSE acted as Secretary at Melbourne, and PROFESSOR JOHN I. HUNTER and DR. S. A. SMITH at Sydney. It was particularly unfortunate that no American anthropologists were able to attend and report on their recent investigations in Polynesia.

The main features of the Section at Melbourne were discussions on linguistic problems of the Pacific, the organisation of research, and the decline of population in the Pacific. DR. A. LODEWYCKX read a paper on linguistic problems and DR. D. MACDONALD on the Polynesian word for God, Atua. DR. VAN H. LABBERTON gave the preliminary results of a research into the original relationship between the Japanese and Polynesian languages, in which he demonstrated that in the earliest form of the Japanese language there were numerous close affiliations with the Austronesian family of languages, which have been overlaid by a later Asiatic language. He also showed that comparisons between various recent Oceanic languages and those of Indonesia and of mainland Asia are apt to be misleading, since changes have taken place in course of time and comparison is



valid only between the oldest forms of the words. PROFESSOR SIR T. W. EDGEWORTH DAVID produced evidence to show that certain stone implements were contemporary with the last glacial age of Tasmania, which was then united to Australia. CAPTAIN G. H. PITT-RIVERS read an elaborate paper on variations in sex ratios in relation to racial decline, the main result of which was to show that more exhaustive and precise information and an improved method of registering vital statistics were required before the causes of the decline in native populations could be established, this being a very complex problem; he adduced evidence which suggested that a preponderance of males over females was an indication of a declining population. At a joint meeting with the Section of Hygiene, JUDGE J. H. P. MURRAY read a paper on the population problem in Papua, DR. P. H. BUCK on decline of population among the Maoris, MR. E. L. PIESSE on decline of population in the Territory of New Guinea, and DR. CILENTE on depopulation of Papua; and the following resolution was passed: "That the scientific problem of the Pacific which stands first in order of urgency is the preservation of the health and life of the native races by the application of the principles of the sciences of preventive medicine and anthropology." A discussion took place on the organization of research among the natives of Australia and the islands of the Pacific, at which were read suggestions made by Sir James G. Frazer, Dr. A. C. Haddon, Dr. B. Malinowski, Mr. W. J. Perry, Professor C. G. Seligman and Professor G. Elliot Smith. Sir Baldwin Spencer, Mr. H. D. Skinner, Dr. P. H. Buck, Professor H. E. Gregory, Judge J. H. P. Murray, Captain G. H. Pitt-Rivers, Sir James Barrett, Mr. J. E. Gullberg, and others joined in the discussion. A committee was appointed to draw up a scheme for the organisation of research. The Committee agreed that the most urgent need was that provision be made in one or more of the Australian Universities for the teaching of Anthropology and the direction of research (Resolution A.). The need for and the objects of research in Oceania and Australia were indicated in another report (Resolution B.); this was deemed desirable since the attention of the anthropologists at the Honolulu meeting of the Congress was largely confined to Polynesia. DR. BUCK informed the Section that the Parliamentary Representatives of the Maori race had founded an Ethnological Research Fund, and he was asked to transmit a Resolution (C. II) of congratulation to his Maori colleagues. A morning was devoted to lantern demonstrations by DR. BUCK and CAPTAIN PITT-RIVERS and an exhibition of specimens by Dr. Ivens and Mr. Skinner, and an afternoon to an inspection of the ethnological collections in the Museum under the guidance of Sir Baldwin Spencer.

At the Sydney Meeting two days were devoted to Australian Anthropology and two to the problems of Oceania. The physical characters of the Australian aborigines were ably demonstrated by Professor John I. Hunter and Dr. A. N. Burkitt. DR. A. H. TEBBUTT gave an interesting paper on blood relationship. MR. PERRY discussed the cultural history of Australia. MR. A. S. KENYON discoursed on the classification of Australian stone implements; some of those from the south resemble Tasmanian types, but there is no evidence that these are older than other types; no chronological sequence of Australian stone implements has yet been established. MR. ENWRIGHT described implements from a Maitland shaft. The relations of the Melanesian, Polynesian and Indonesian cultures led to an interesting debate in which PROFESSOR J. MACMILLAN BROWN, MR. H. D. SKINNER, MR. PERRY, DR. BUCK and others took part. MR. PERRY (as also in Melbourne) gave a lucid account of the conclusions to which he has arrived concerning the origin and spread of the "Archaic Civilization." The Section visited the Australian Museum one morning under the guidance of Dr. C. Anderson and Mr. W. E. Thorpe, and on another occasion Dr. Buck



exhibited at the Museum some most interesting lantern slides and cinematograph films illustrating the technique of Maori basketwork and mat-making, etc. The final meeting consisted of a joint discussion with the Section of Geography, in which PROFESSOR T. GRIFFITH TAYLOR explained his views (as published in *The Geographical Review*, New York, XI., 1921, p. 54) on "zoning" and the geographic principles governing early migration, "corridors," "shatter-belts," etc. DR. HADDON gave a blackboard demonstration of his views concerning the early distribution and migrations of peoples, more particularly of the Indo-Pacific area, which differed fundamentally from that proposed by Griffith Taylor, though resembling it in some particulars. Noticeable features of the Sydney Meeting were that most of the mornings were devoted to the discussion of matters and problems of general interest pertaining to the Pacific area, in which invited representatives of the various sections took part, and meetings in which two or more sections met to discuss matters of common interest. Public evening lectures on anthropological subjects were given by DR. ELLSWORTH HUNTINGTON: "The desert peoples of Central Asia"; PROFESSOR J. MACMILLAN BROWN: "The mystery of Easter Island"; DR. P. H. BUCK: "The romance of Maori life and culture"; and DR. A. C. HADDON: "The migration of peoples in the South-western Pacific."

Opportunity was given on the motor ride from Cobar to Broken Hill, N.S.W., to visit old native camp sites near Wilcannia, where numerous stone implements were picked up, and on excursions from Broken Hill stone artifacts were collected in various places. The especial interest of these implements is that they represent the rough domestic tools that were used and left where they were, as was the case in analogous European sites, and consequently are different from the stone axe-heads and other implements which mainly represent Australian technology in European museums.

The following resolutions were passed by the Congress:—

A. FOR PRESENTATION TO THE COMMONWEALTH GOVERNMENT:

(a) TEACHING OF ANTHROPOLOGY.

The preservation, progress, and welfare of the native population of Oceania, which is a charge under the terms of the mandates granted to the Commonwealth of Australia and the Dominion of New Zealand, can best be carried out by a policy based on the investigation of native conditions, customs, laws, religion, and the like, which is a study not merely of academic interest and importance, but points the way to a sympathetic method of dealing with and governing such peoples. The economic development of these countries depends entirely upon the adoption of an intelligent native labour policy of recruiting, treatment, protection, and so forth, which can be built up only on a wide and sympathetic knowledge of native life and thought; this knowledge can best be gained by intensive investigations by trained students. His Excellency Judge J. H. P. Murray has repeatedly drawn attention to these matters and has given effect to his opinion by appointing special officers in Papua for this purpose. There is even greater need of such action in the mandated Territory of New Guinea, in many of the islands of which, according to the most recent report published by the Commonwealth Government, the natives are rapidly dying out.

The Congress, therefore, urges that provision be made for the teaching of Anthropology in the Universities of Australia.

The duties of the instructor should be:—

1. A. To teach Anthropology (a) in co-ordination with geographical, historical, psychological, anatomical and other departments; (b) as a training for Government officials, missionaries and others who will be brought into personal contact with natives; (c) as a training for investigators in the field, who may or may not be attached to some local Government.

B. Himself to undertake and direct field research.

2. The stipends attached to such posts should be of the same amount as those of analogous positions in other departments.
3. Travelling allowances must be provided for work in the field.
4. Grants would have to be made for the equipment and maintenance of a laboratory and departmental library.



## (b) STUDY OF AUSTRALIAN ABORIGINES.

In view of the great and peculiar interest of the Australian aborigines as representing one of the lowest types of culture available for study, of the rapid and inevitable diminution in their numbers, and of the loss of their primitive beliefs and customs when under the influence of a higher culture, the Pan-Pacific Congress urges that steps should be taken, without delay, to organise the study of those tribes that are, as yet, comparatively uninfluenced by contact with civilisation.

## (c) CINEMATOGRAPH RECORDS OF THE INDUSTRIES OF THE AUSTRALIAN ABORIGINES.

That the Commonwealth Government be asked to take steps to obtain complete cinematograph records of the various industries and arts of the Australian aborigines on similar lines to the admirable work being carried on by the Dominion Government of New Zealand.

## B. FOR PUBLICATION IN THE REPORTS OF THE SECOND PAN-PACIFIC SCIENCE CONGRESS :

## ANTHROPOLOGY.

1. *Need for Research in Australia and Oceania.*

Recognising the necessity for the immediate prosecution of anthropological research in Australia and Oceania, this Conference calls the attention of Governments, Universities, patrons of research, and research foundations to the pressing and important need for this investigation.

This study is urgently needed for the following reasons :—

(i) The undoubted disappearance of the native population in many areas, which not only seriously affects the labour problem, but involves the loss of most valuable scientific material, and, in the territories held under Mandate, is itself the most serious obstacle to the duty accepted by the Mandatory Powers of promoting the material and moral well-being and social progress of the inhabitants.

(ii) The practical importance of the ethnological study of native races has been recognised by His Excellency Judge J. H. P. Murray by the appointment of two officers in Papua especially for this purpose. Experience has shown the economic value of placing the control of labour in the hands of a man who has a sympathetic knowledge of native conditions and thought in eliminating disputes and inducing a contented frame of mind in the workers. Expert advice on native matters has proved of inestimable value to Governments, for instance, in New Zealand and in Africa.

It is, therefore, urged that Governments responsible for the welfare of Oceanic peoples should recognise that ethnology has a practical value in administration and is of definite economic importance, and that they should proceed without unavoidable delay to take such steps as are necessary for these purposes.

2. *Facilities for Instruction and Research in Anthropology.*

This Congress endorses the remarks and recommendations of the previous Congress on these matters.

3. *Objects of Research.*

(i) The study of racial mixture is of great importance from a sociological point of view, but it is first necessary that the physical anthropology and psychology of the component races should be adequately investigated. An agreement as to procedure and standardised methods should be adopted without delay as, without these, comparisons of results by various workers are impossible.

(ii) The intensive study of limited areas, comprising all branches of anthropology, including linguistics.

(iii) The collection, translation, and publication of information already on record.

(iv) One object of these and similar inquiries is to elucidate the history of Oceania, which can be accomplished by a comparative study of traditional lore, languages, beliefs and practices, and physical characters.

(v) It is essential that anthropologists should seek the co-operation of geologists, botanists and zoologists, since the solution of the problems of the distribution of men is largely dependent upon their aid.

(vi) The ethnographic survey of Oceania is faced with the problem of determining which parts of the region deserve priority of treatment.

For historical reasons the area that first needs study is Micronesia, since the culture and ruins of this group are of such a nature that, adequately dealt with, they should furnish the clue to much that is obscure in Oceanic mythology, folk-lore, and culture generally. While Micronesia is an area of outstanding importance, other parts of Oceania should receive early attention, among them being Southern Melanesia, including New Caledonia, New Guinea; Tahiti and neighbourhood, especially Raiatea; and Manu'a of Samoa.



4. *Areas of Research.*

The Congress is generally agreed that it is desirable for practical purposes that the investigation of various areas in Oceania should be undertaken as a whole by definite bodies.

The Pacific region may be divided into four main areas—(i) Australia, (ii) New Guinea and Melanesia, (iii) Polynesia, (iv) Micronesia.

It is suggested—(i) That Australian ethnology be the especial concern of Australia. (ii) That Australia should more particularly investigate Papua, the Mandated Territory of New Guinea, and Melanesia; but Britain and France should assist in this work. (iii) That the investigation of the Maoris be the especial province of New Zealand. The rest of Polynesia may be regarded as pre-eminently the field for American research, with the co-operation of France and New Zealand. (iv) That the study of Micronesia be the particular province of Japan and America.

Although Indonesia is not technically a part of the Pacific it has such close historical and cultural affinities with Oceania that a thorough investigation of this area is indispensable for a comprehensive knowledge of Oceanic problems. While recognising what has been done by the Netherlands Indies Government, the Congress hopes that this Government may see its way to co-operate in the proposed general scheme.

C. TO BE SENT TO THE FEDERAL GOVERNMENT, THE UNIVERSITIES OF AUSTRALIA AND NEW ZEALAND, AND TO HONOLULU.

## PRINTING OF THE LINGUISTIC STUDIES OF MR. S. H. RAY.

I. The Congress hopes that means can be found for ensuring the publication of the studies of Mr. Sydney H. Ray on Oceanic languages.

II. The following resolution was passed by the Section of Anthropology to be forwarded to the Parliamentary Representatives of the Maori Race:—

That the members of the Anthropological and Ethnological Section of the Pan-Pacific Science Congress receive with pleasure the greetings of their Maori colleagues and express their appreciation of the practical steps taken by the Parliamentary Representatives of the Maori Race in founding a Maori Ethnological Research Fund. They convey to the Representatives and the Maori people their greetings and best wishes for support and success in the work they have begun. They are gratified that one of the objects of the Congress is receiving such magnificent support from one of the native races of the Pacific.

## CORRESPONDENCE.

Africa, West : Art.

Thomas.

*To the Editor of MAN.*

**Sierra Leone Heads.**

SIR,—The heads described by Mr. Addison (*MAN*, 1923, 109) are found in the Koranko country also. I saw one on the roadside near Yarawaya, but was on the march and unable to ascertain any details; I had not even a plate, so that it remained unphotographed. As far as my recollection goes it resembled those figured in general aspect and pose of the head; I think the figure seems to be represented with closed eyes, but this may be only apparent and due to the difficulty of representing the eyelids.

Yours faithfully,  
N. W. THOMAS.

Religion.

Thomas.

*To the Editor of MAN.*

**Sacrifice by Hurling from the Roof.**

SIR,—There are other parallels to the custom dealt with by Mr. Hutton (*MAN*, 1923, 110). Robertson Smith has cited some, but I have not the reference at hand. A cat or goat was similarly dealt with at several places in Europe (Coremans, *L'Année de l'ancienne Belgique*, p. 53; *Zts. für deutsche Mythologie*, II., 93; Sommer, *Sagen aus Thüringen*, p. 179; *Mitt. des Nordböhmischen Excursions-Clubs*, XXIII., 108.

Yours faithfully,  
N. W. THOMAS.





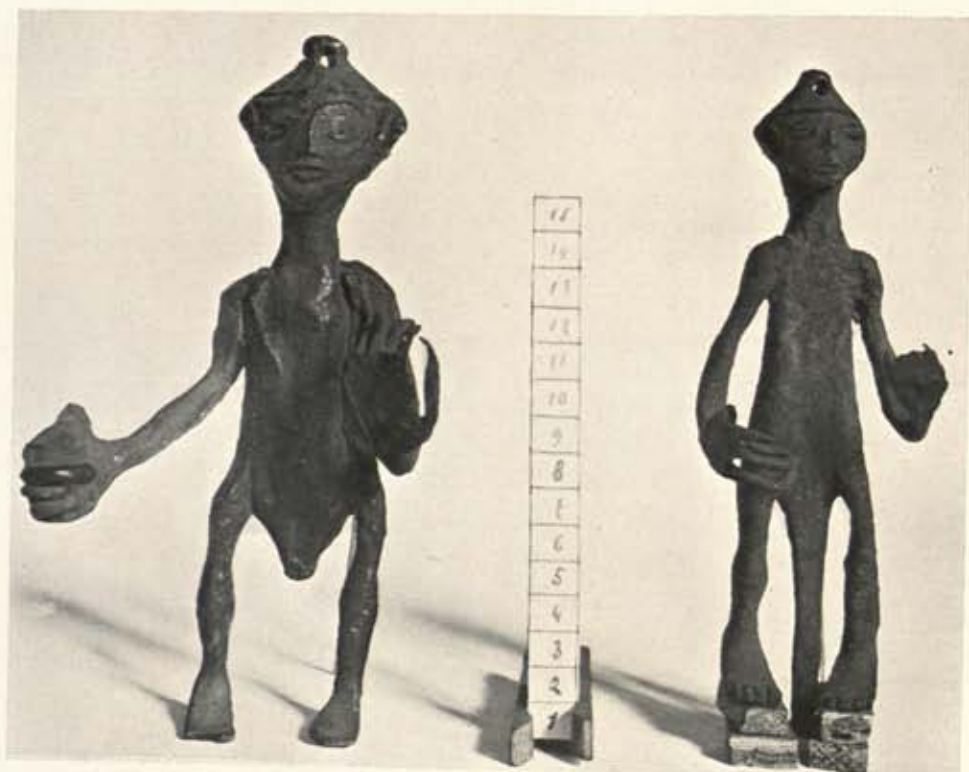


FIG. 1.

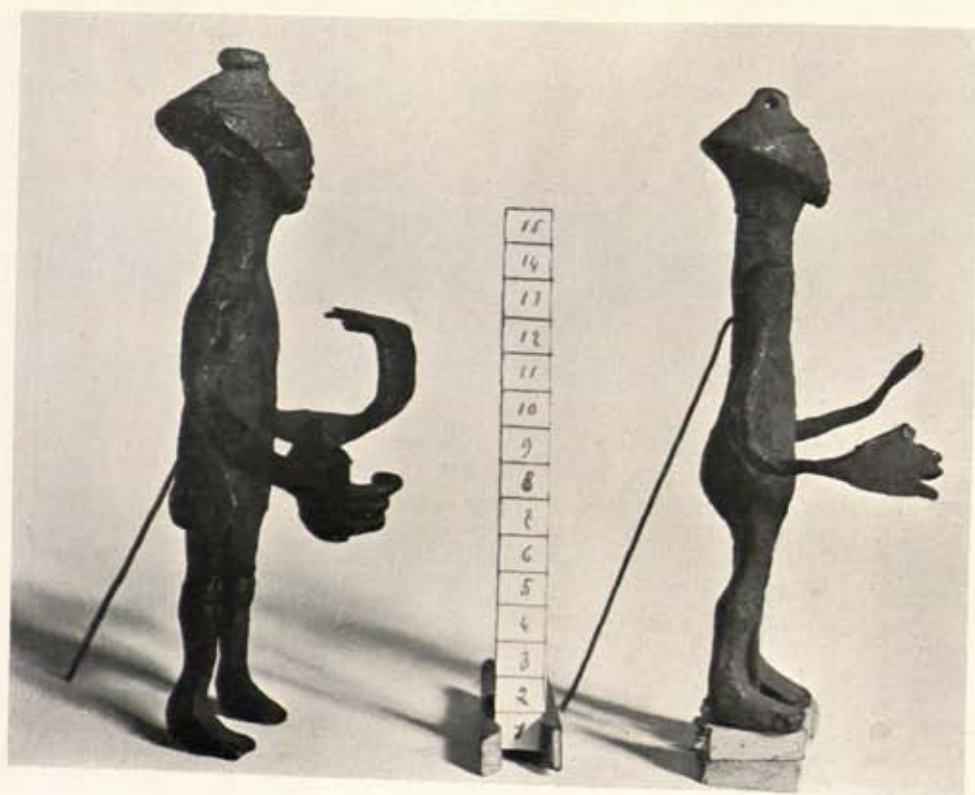


FIG. 2.

FIGURINES OF FORGED IRON FORMERLY MADE BY THE BUSHONGO,  
BELGIAN CONGO.

## ORIGINAL ARTICLES.

With Plate B.

Africa, West: Metallurgy.

Torday.

**Note on certain Figurines of Forged Iron formerly made by the Bushongo of the Belgian Congo.** By E. Torday. (With Plate B.) 13

In the monograph on the Bushongo, published in the names of Mr. T. A. Joyce and myself in the *Annales du Musée du Congo*, Tervueren, we refer on pp. 25 and 195 to certain figurines of forged iron, manufactured during the reign of the paramount chief Miele, who apparently ruled during the early decades of the sixteenth century. To quote from p. 25 of the above-mentioned work: "Ce chef était un célèbre forgeron, et, sous son règne, l'art de travailler le fer atteignit un très haut degré de perfection. Des figures en fer d'hommes et d'animaux ont été forgées, dit-on, quelques-unes ayant jusqu'à 18 pouces de long. On n'a pu en trouver aucune; les derniers spécimens, ou, suivant certaines traditions, les dix derniers, ont été donnés à un officier de l'État par le chef actuel."

On a recent visit to Belgium I was fortunate enough to obtain confirmation of this interesting tradition. In the Museum of the Butchers' Hall in Antwerp I found the interesting figurines

which are illustrated in Pl. B and Fig 1. They reached the Museum with a collection of objects from the Congo and are probably the—or two of the—figures referred to by the chief as given to a Belgian officer. The style is unmistakably Bushongo; the resemblance of the heads to the cup represented in Fig. 289, c., "Les Bushongo," p. 199, is striking. I believe that in these specimens we have two examples of sixteenth century Bushongo ironwork, of which there remains in their native country only the tradition.

I have to thank Mr. Claes for the permission to have the specimens photographed.  
E. TORDAY.



FIG. 1.

Britain: Archæology.

Moir.

**Man and the Ice Age.** By J. Reid Moir. 14

On the plateau to the east of Ipswich, and adjoining the Foxhall Road, is the site where, for many years, the Valley Brickfield (now abandoned) existed. The plateau at this particular spot reaches a height of about 140 feet O.D., and is cut into by a well-marked hollow, containing the brickearth which was exploited for brickmaking. In 1902, Miss Nina Layard discovered, in this brickearth, a



large number of palæolithic flint implements, the majority of which are referable to late St. Acheul times. Miss Layard has published an account of her discoveries (*Journ. Roy. Anthr. Inst.*, Vol. XXXIII, 1903, and other papers), and, from the unabraded condition of most of the implements found, it seems certain that an actual, undisturbed palæolithic living-surface exists at the Foxhall Road site. In

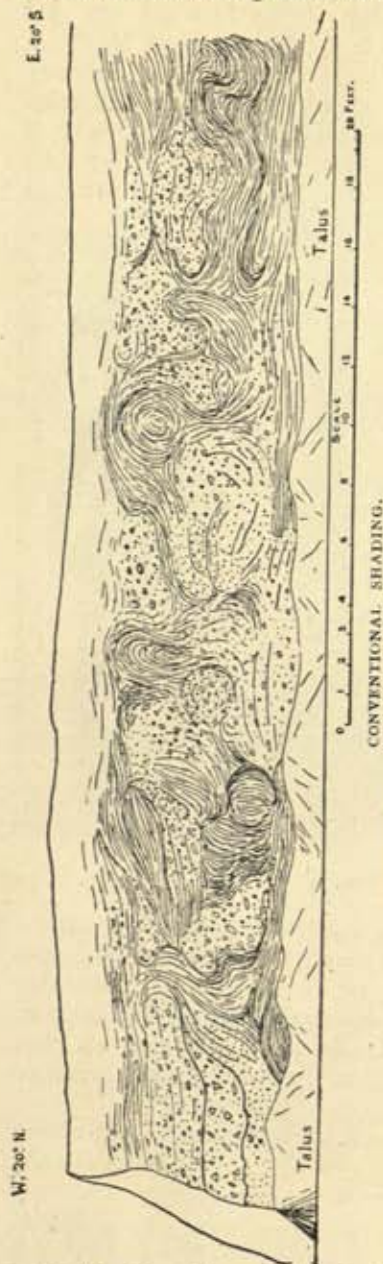


FIG. A.—CONTORTED DEPOSIT E. SIDE BRICKFIELD, FOXHALL ROAD, IPSWICH.

1914, Mr. Reginald Smith carried out excavations in the Valley Brickfield, and has given an account of the work in the *Proceedings of the Geologists' Association* (Vol. XXXII, 1921, Part I). Both Miss Layard's and Mr. Smith's investigations were confined to the implementiferous deposits occurring upon the western side of the hollow, whereas my researches took place upon the eastern side. In fact, when I was conducting my examination, the excavations upon the western side of the hollow were already filled in and abandoned, though, as I have stated, a section was opened by Mr. Reginald Smith in 1914, after my work in the brickyard was completed. The excavations on the eastern side of the hollow were carried out for the purpose of levelling the ground, and, for many months, I was able, day by day, to take note of the sections exposed as the digging proceeded. The whole of the eastern side of the hollow in the brickfield was composed of a violently contorted, and obviously glacial, deposit averaging 8 to 12 feet in thickness. Professor Boswell has published a description of this material in the brickfield (*Proc. Geol. Assoc.*, Vol. XXV, 1914, p. 136), and classes it as of "upper glacial age." Professor Boswell's drawing is here reproduced (Fig. A) by kind permission, and it will, I think, at once be recognised by anyone with a knowledge of such matters that the accumulation depicted is an undoubted glacial deposit. Further, Mr. Reginald Smith, in his paper quoted above (p. 6), records the fact that I observed, in this deposit, a large sarsen erratic in size 2 feet 8 inches by 2 feet by 1 foot. The importance and interest of this glacial material at the Foxhall Road site will be recognised when it is realised that, in and

under the deposit were found definite "river-drift" palæolithic flint implements. These specimens I now propose to describe.

The implement here figured (Fig. 1) was found at a depth of 5 feet in the contorted glacial deposit, and may perhaps be regarded as a somewhat unsymmetrical example of early St. Acheul workmanship. The specimen exhibits, on its



flaked areas, a colouration made up of varying quantities of greenish-brown, and blue. The ridges and outstanding portions of the implement are somewhat abraded, while many of the flake-scars carry innumerable weathered-out striae, most of which follow very erratic courses, while some are more or less parallel to one another. Associated with these striae are many "centipede" markings (for an explanation of the origin of these, see *Geological Magazine*, Vol. LVIII, pp. 187-9, April, 1921),

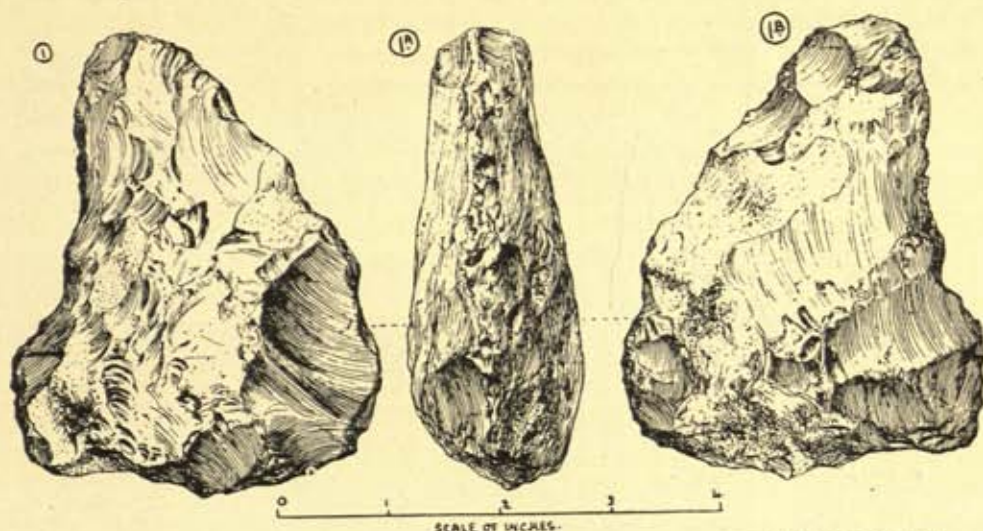


FIG. 1.—IMPLEMENT OF ST. ACHEUL TYPE, FROM CONTORTED UPPER GLACIAL DEPOSIT, FOXHALL ROAD, IPSWICH.

and a large number of incipient cones of percussion. In some cases it appears that the (?) percussive force has been so great as to give rise to small pits in the surface of some of the flake-scars. Thus it is clear that this specimen has been subjected, in the past, to natural pressure, and to natural percussion of a very violent kind, yet it is quite obvious that this treatment has not resulted in the production of any flake-scars upon the implement. The striae exhibited by the specimen also afford strong corroborative evidence of its derivation from a glacial deposit. The implement was found by Warren, the late foreman of the Valley Brickfield.

This specimen (Fig 2) was found by me at the base of the glacial deposit at Foxhall Road. It represents, in all probability, a roughly made implement of St. Acheul date. The lower surface (seen in Fig. 2A) is composed of one flake-scar, and is more or less flat. The upper surface (Fig. 2) exhibits a number of flake-scars, while the two longer edges of this surface have been modified by the removal of numerous small flakes. The flaked areas of the specimen are a dark chocolate-brown



FIG. 2.—IMPLEMENT FROM BASE OF UPPER GLACIAL DEPOSIT, FOXHALL ROAD, IPSWICH.

colour, and carry a number of weathered-out striae, and some incipient cones of percussion. Small pits of (?) percussion are also observable in the surface of some of the flake scars. As in the specimen just described (Figs. 1, 1A and 1B), it is clear that the rough treatment to which the implement under description has been subjected, has not resulted in the removal of any flakes from the stone.



This specimen (Fig. 3) was found by the foreman Warren and was handed to me on the day of its discovery. The implement, which is almost certainly of late St. Acheul date, occurred at the base of the contorted glacial accumulation at Foxhall Road. It exhibits an ochreous colouration, and is somewhat abraded. It is figured in Mr. Reginald Smith's paper (*Proc. Geol. Assoc.*, Vol. XXXII, 1921, Part I, Fig. 10), and is reproduced here by permission. These discoveries make it certain that flint implements of lower palaeolithic age have been found at Foxhall Road, Ipswich, in and beneath a glacial deposit. It remains to ascertain whether this accumulation can be correlated with the boulder clay occurring a comparatively short distance away to the north-west and west of the Foxhall Road site. The

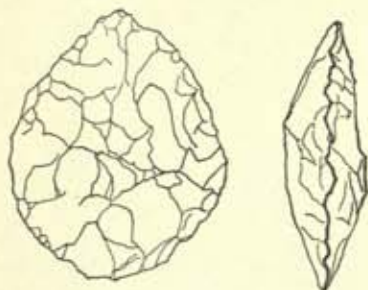


FIG. 3.—IMPLEMENT FROM BASE OF  
CONTORTED UPPER GLACIAL DEPOSIT,  
FOXHALL ROAD, IPSWICH.

discovery of St. Acheul implements in the contorted material shows clearly that the period of low temperature during which it was laid down occurred in post-St. Acheul times. And it would seem probable, therefore, that the Foxhall Road deposit may be correlated with the boulder clay to the north of Ipswich, which has been shown to contain implements of early Le Moustier date (*Journ. Roy. Anthr. Inst.*, Vol. L, 1920, pp. 135-152). But this must, at present, be regarded merely in the light of a suggestion. It was ascertained by Miss Layard, by means of a boring, that a deposit of boulder clay appears to underlie the palaeolithic beds at Foxhall Road (*Journ. Roy. Anthr. Inst.*, Vol. XXXIII, 1903), and this boulder clay would, it seems, have been laid down in pre-St. Acheul times. It has become of great interest to ascertain the exact nature and contents of this boulder clay, and, owing to the generosity of the Trustees of the Percy Sladen Memorial Fund, Professor Boswell and I are now able to make a considerable excavation at Foxhall Road, with the object of clearing up this and other associated problems. It is hoped that an account of the work may be published in the near future.\*

The implements figured in this note (Figs. 1, 1A and 1B, and Figs. 2 and 2A) are preserved in the High Street Museum at Ipswich, while that illustrated in Fig. 3 and 3A can be seen at the British Museum, Bloomsbury. J. REID MOIR.

### Assam : Archæology.

#### Two Celts from the Naga Hills. By J. H. Hutton. C.I.E.

The form of stone celts usually found in the hills inhabited by the Naga tribes has already been described elsewhere.† The commonest type is roughly triangular, the cutting edge (the base) alone being polished, and the sides showing a rough attempt at shouldering. It was clearly fitted into a wooden handle by the insertion of the apex end into a hole as is done with its iron representatives to-day.‡ The less common type is longer in proportion to its width, has no attempt at shoulders, and was probably lashed to a wooden crook, a method still in use with certain forms of iron hoes. Both types were probably used principally as hoes, though there is no reason why they should not have also served as adzes and axes. At any rate the iron implement which is derived from them is a hoe in the case of the partly-shouldered celts. The latter type is by no means rare, and a number of specimens may be seen in the Pitt-Rivers museum at Oxford. The longer unshouldered type,

\* This has now been done, subsequent'y to the writing of this note—see *Journ. Roy. Anthr. Inst.*, Vol. LIII, 1923.

† "The Angami Nagas" pp. 404, 409; "The Sema Nagas," pp. 254, 256.

‡ See MAN, July, 1917. Balfour: "Some Types of Native Hoes, Naga Hills"; also "The Sema Nagas," p. 66.

though less common, is also represented there. In both cases the edge is "plano-convex," as is always the case with Naga daos and adzes.

Recently two fresh types of celt have come to my notice, one from the south of the district and the other from the north. Both differ from any type hitherto found in this area. The first (Fig. 1) is a fair-sized implement made from a hard reddish stone. It has been rubbed more or less smooth all over and reduced to an approximately uniform thickness (which the commoner types are not) and has been cut into carefully squared shoulders, with a rectangular tang for the socket of the haft, in a manner infinitely more elaborate than the very rough shouldering of the usual type. This celt is now in the possession of an old Thado Kuki, who obtained it from a Kacha Naga (Nzemi), now dead, who is believed to have found it near the site of his village, Bapugwena.



FIG. 1.—SHOULDERED CELT FROM BAPUGWENA, NAGA HILLS.  
 $\frac{2}{3}$ RD NAT. SIZE.

The owner refuses to part with it, as he finds licking it an infallible cure for a "hot tongue," with which he is no doubt very frequently troubled as a result of his potatoes.

The second celt (Fig. 2) is a smaller specimen which differs from all others mentioned in having both sides of its cutting edges the same (instead of one flat and the other rounded), and in being so nearly square that it is difficult to see how it could have been even fastened to a crook. It was, perhaps, hafted by being fixed in a cane loop, a method that I have seen most effectively used by the Phom Nagas for stone hammers. This celt is made of a white stone with pale green veins resembling serpentine and is polished throughout. This specimen is in the possession

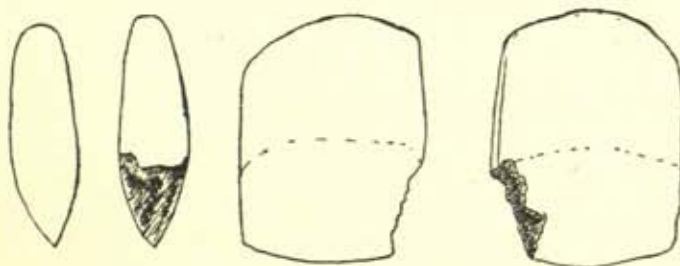


FIG. 2.—POLISHED SERPENTINE CELT FROM KAMAHU, NAGA HILLS.  
 $\frac{2}{3}$ RD NAT. SIZE.

of Mr. J. P. Mills, and is, I understand, destined for the Pitt-Rivers museum at Oxford. It came from the village of Kamahu.

As for the latter specimen, I do not know whether it has any particular affinity to any other type to east or west, or not,

but the former type forms an interesting link between the Mon-Khmer implements of the Malay Peninsula and of Chota Nagpur not hitherto found in the Naga Hills, though I believe that they have been found in the Irawadi Valley. That this type might be expected in these hills we know from S. E. Peal's article "On some Traces of the Kol-Mon-Anan in the Eastern Naga Hills" in the *Journal of the Asiatic Society of Bengal* in 1896 (No. 1). In this article an iron hoe from the Naga Hills—to be precise from Ledo in the north-west of the Konyak Naga country—is figured, and



compared with a stone hoe of exactly the same type as the one now found, but coming apparently from Malay. The iron hoe in Peal's illustration is hafted with a cane loop going round the tang and resting on the shoulders of the hoe. In the Khasi type the existing iron hoe has the tang fitting into an iron socket,\* while the smaller Yachumi Naga hoe figured by Mr. Balfour in MAN, July, 1917, and by me in "The Sema Nagas" (p. 66) is used with a wooden handle, the tang fitting into a slot.

The Konyak and Yachumi iron hoes are doubtless, like the Khasi hoe, inherited from the Mon-Khmer, but the stone hoe now figured suggests that some branch of the Mon-Khmer race inhabited or passed through the Naga Hills before it had learnt the use of iron.

J. H. HUTTON.

### Africa : Linguistics.

Shaw.

**A Note on some Nilotic Languages.** By the Venerable Archdeacon  
Archibald Shaw.

16

The following notes suggested themselves to a student of Dinka on reading a paper on the Nilotic languages in the JOURNAL, Vol. L., 1920, p. 327 *et seq.*, to which the references are made.

*Bari language* (§ 1, ii).—This language (dialects of it) extends considerably beyond the reduced Bari tribe. It is spoken by the following tribes:—Chir, Mandari, Nyambara (Nyangwara), Fajelu, Kakwa (extending into the Belgian Congo), Nyepo, Kuku. They are contiguous, and cover an area roughly 150 by 100 miles.

*Shilluk dialects* (§ 1, iv).—The Beir language proper is not a dialect of Shilluk. The mistake no doubt arose through the word *Ber* being a name commonly given by Dinkas to any neighbouring tribe of different speech. North of the Sobat River I have often found Dinkas speaking of the Shilluks as *Ber*. The southern Dinkas give the name to a tribe sometimes spoken of as Ajibba which lies to the east, and it is this tribe which the Sudan Government has named *Beir* in imitation of the Dinka name for them. I have on one or two occasions taken down a few words of the *Beir* language, which shows little similarity to Shilluk or its kindred dialects. The numerals will, perhaps, suffice for example:—1, adoi; 2, rama; 3, iyu; 4, thorkoc; 5, tham; 6, wec; 7, oth; 8, wam; 9, thamkana; 10, amatho.

There is a tribe named Beri east of Mongalla which speaks a dialect of Shilluk, and still has occasional intercourse with the *Acholi* further south.

The word *Luo* is interesting, as being the name by which several different tribes, each speaking a dialect of Shilluk, call themselves, viz.:—*Jur*, *Acholi*, *Alur*, and *Nilotic Kavirondo*. With exception of *Acholi* and *Alur* these tribes are separated from each other by tribes speaking entirely different languages. We know that *Shilluk*, *Jur*, *Acholi*, *Gang*, and *Nilotic Kavirondo* are all names given by foreigners, though, if the question is asked by a stranger, some members of these tribes will answer that they are the original names. Can *Luo* be the original name of the Shilluk-speaking stock, analogous to the name *JIENG*, common to all Dinka-speaking tribes?

The name "*Jur*" (§ 1, iv) is also liable to lead to confusion. It is apparently a Dinka word meaning "people," "tribe." Early travellers, therefore, adopted it for at least two entirely different tribes living on the borders of the Dinka country, and the name is still applied to both. One is a Shilluk-speaking tribe between Rumbek and Tonj, who will now tell strangers that they are *Jur*, but call themselves "*Luo*." The other is a tribe living round Mvolo, whose language is akin to Bongo, and who call themselves "*Lori*."

§ 6B.—Future particle "*bi*" is, in Dinka, derived from the irregular verb "*ben*," to come. This is clear when a Dinka, speaking emphatically, will sometimes

\* See Gurdon: "The Khasis," p. 12 (2nd Edition).

substitute the original "ben." Also, when speaking in one place of being about to do something in another place, he will substitute forms of "lo," to go, for "bi." No "b" occurs in the root of the Dinka verb "to be."

N.B.—Dinkas are pedantic in their precise use of the verbs "come" and "go." When summoned, a man will call in answer from a distance "An lo," "I go;" never "An bo," "I come."

§ 9.—Dinka has an inexhaustible supply of reduplicated forms, generally used with the verb "lo," to go. They are often obviously onomatopœic, and almost always used of vivid description. I do not think that any of them are conjugated, and so they should doubtless be termed adverbs. If there are, as Müller says, among the most primitive forms of speech, the derivation of some common words is suggested, e.g.—

*la kakak*, to run—cf. *kat*, to flee.

*lo \*cañcañ*, to go fast—cf. *cat*, to walk.

*lo debedebe*, to toddle.

*lo riuriau*, to glitter—c.f. *rial*, a silver coin.

*lo yauiyau*, to rustle.

Reduplicated noun forms are also found, e.g.—

*noiñoi*, glands in the neck.

*werwer*, the day before yesterday.

*atitiak*, waves. I have not heard this used as a verb.

*beo*, a goat, forms its plural *buot* or *bebeo*.

§ 10.—Causation is commonly expressed in Dinka by the verb *co* (*ca*), which appears to be connected with *cak*, to create. It needs to be carefully distinguished in use from the forms *ne*, *neke*, meaning *let*.

In all Dinka tenses, except the Pres. Continuous and Past Continuous, the Direct Object of a Transitive Verb is placed between the tense particle and the verb root, e.g.—

*An (a) cam cwin*, I am eating porridge.

*An ye cwin cam*, I eat porridge.

*An bi (lo) cwin cam*, I will eat porridge.

(§ 33).—Alternatively, if the particle "e," of, is inserted the direct object follows the verb in each tense, e.g.—

*An (a) cam e cwin*.

*An ye cam e cwin*.

*An bi (lo) cam e cwin*.

In Habitual mood particles, which are the ordinary forms of the verb, to be, are inserted—

*An (a) cam*, I am eating. Pres. Continuous.

*An ye cam*, I eat. Pres. Habitual.

§ 11.—*Rot* (*ro*), pl. *rot*, self, cannot be considered a suffix any more than any other noun, e.g.—

*An (a) kwal rot*.

I am escaping (stealing myself).

*An (a)bi rot kwal*.

I shall escape.

*An (a)bi rot ber kwal*.

I shall escape again.

In Acholi this word appears to have become a true suffix in the form of *-re*.

§ 13.—What Westermann says of Shilluk holds true in Dinka, that the Passive Voice is generally used in preference to the Active.

§ 18.—*Tem-wel* and *tem-yar*. There is no reason for treating these as

\* ñ is used for sound of *ng* in *singer*. c is used for sound approximating to that of *ch* in *church*.



compounds. It is only in certain tenses that they can even be in juxtaposition, e.g.—

*An (a)tem wel.*

I am interrupting (cutting words).

*An ci wel bi tem.*

I will not interrupt.

*An ci wel dai tem.*

I will not soon interrupt.

§ 19. See note above on § 6.—The *Habitual* prefix is the ordinary verb “to be,” *ye*, conjugated in its various forms. The more common prefix “a” is the particle of the ordinary tenses (i.e., not *Habitual*).

Bor dialect has a prefix “*du*”—which appears to denote an official character in the one who acts, e.g.—

*dugam.*

1. A midwife. 2. A repeater—one who repeats each sentence of a public orator’s speech.

*dutuc.*

A messenger.

*dulek.*

A witness.

*Ducie*

The Creator.

§ 26. A.—Dinka substantives, with a few exceptions, ending in the letters p, t, c or k, followed by a qualifying word or phrase, change these final letters as follows:—

p to m.

*liep*, tongue.

*lieme*, this tongue.

t to n.

*düt*, bird.

*din e toc*, a bird of the marsh.

c to ñ.

*mac*, fire.

*mañ düt*, a big fire.

k to ñ.

*tiik*, woman.

*tiñ düt*, an old woman.

*biok* = a hide.

*bion* = a small skin (cloth).

The latter is surely the changed form of the former.

Many words which have lost their final consonant recover vestiges of it in this system of mutation, e.g., *jo(k)*, dog; *joñdie*, my dog.

B. The Dinka diminutives are—

1. \**ti*, modifying to *tin*.

2. *ñintet*.

*met*, a child; *mañti* or *maññintet*, an infant.

*ti* appears to be derived from *tin*—teat. I have noticed that a man describing a child as very small will actually touch his breast while speaking of the child as *mañti* (a breast child).

-*tet* may be—

1. the adverb *etet*, very, found in the Chich Dinka dialect; or

2. from the verb *twat*, to suckle.

The form *tinakan* is evidently the diminutive *ti* in ordinary combination with *ekan*, this; e.g., *kur tin ekan*, this little stone.

§ 27. Many words in Dinka that end in a vowel form their plurals by adding -i, e.g.—

*kure*, a pigeon.

pl. *kurei*,

*mono*, baked bread.

pl. *monoi*;

Foreign words in process of adoption are made to form their plurals thus: *coka* (from Arabic *shoka*, a fork), pl. *cokai*.

§ 28. Many substantives form their plurals by adding “k,” e.g.—

*du*, a boy.

pl. *duok*,

*twen*, a cow.

pl. *ghok*;

\* The signs .t d. ñ are used for interdentalals, distinguished carefully from t, d, n.  
† [This should more probably be written *ghuera*.—N. W. T.]

but, as in almost every Dinka rule of grammar, the converse is just as common :—

<i>gok</i> , a quiver.	pl. <i>go</i> .
<i>acuek</i> , bicep.	pl. <i>acue</i> .

Many substantives form plural by adding *t*. I know of no instance of the converse of this—

<i>añau</i> , wild cat.	pl. <i>añat</i>
<i>piou</i> , heart.	pl. <i>piot</i> .
<i>kou</i> , back.	pl. <i>koť</i> .

§ 32. The ordinary Dinka Genitive is formed by the particles *e* or *de*, of; pl. *ke*, the number depending on that of the possessed noun, *e.g.*—

<i>toñ e (de) meť</i> .	The spear of the child.
<i>toon ke meť</i> .	The spears of the child.

But what has been described as another method of expressing the Genitive is found when the relationship between the possessed and the possessing is very close, *e.g.*, in speaking of parts of the body—

<i>muk</i> (hold) <i>mēť</i> (child) <i>nom</i> (head).	Hold the child's head.
<i>ťieke</i> (shut) <i>ghot</i> (hut) <i>ťok</i> (door).	Shut the door of the hut.

Here, however, the second (or possessed) noun seems to be a sort of "Accusative of Respect" or reference, only translatable into English by a variety of our prepositions :—Hold the child by the head. Close the hut at its mouth. The proof of this explanation lies in this construction only being used where the noun or pronoun concerned forms the *object* of a verb, as in above sentences. But the regular Genitive with its preposition is used where the nouns or pronouns form the subject of a verb, *e.g.*—

<i>nom de meť atok</i> .	The child's head is aching. (More idiomatically expressed by <i>meť atok nom</i> , the child is aching in the head.)
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There is evidently a close connection between this construction and the use of the pronominal forms *a*, *i*, *e*, *wo*, *we*, *ke*, as possessive *prefixes* for parts of the body in contrast to the ordinary possessive *suffixes* *-die*, *-du*, *-de*, *-da*, *-duon*, *-den*.

The prefixes are only used where the noun concerned is the *Object* of a verb, *e.g.*—

<i>muk anom</i> .	Hold my head (or hold me by the head),
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but—

<i>nomdie atok</i> .	My head aches. (More idiomatically expressed by <i>An atch nom</i> , I am aching in the head.)
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ARCHIBALD SHAW.

## Africa, West: Archæology.

Thomas.

**Stone Circles in Gambia.** By Northcote W. Thomas, M.A.

In the article on this subject (*Journal*, LIII, 173, *sq.*) are a certain number of points which the author probably intended to revise, but which, as a result of his death before his paper appeared, have been left in a rather misleading form. As regards the Periplus of Hanno, the 12 days' voyage was reckoned from the island of Cerne, three days' sail from the Lixus, and when he put back it was to Cerne. The river full of crocodiles was seen near Cerne, not after the 12 days' run, and we may, perhaps, identify it with the Wad Šibika, but it is certainly not the Senegal. It is more probable that the Lixus is the Wad Sus; the Wad Draa is probably the Chretes. Hanno's account of the Gambia is "a huge gulf, on the land side of which "there was a plain"; he describes one side only, and there is no evidence that he sailed far up the river, nor yet that there were any cattle, unless we take Herodotus, IV, xliii, as evidence without knowing to what part of Africa it refers.



As regards the rivers, there is much uncertainty; Delafosse affirms very positively that the Daradus is the Draa and the Stachir the Saguiet el Hamra. As to the Garamantes, the same author regards them as Berbers, while others identify them with the Teda. It does not appear that there is really any evidence to equate them with the Mande, for even if the philological argument carried any weight, Delafosse, our best authority, places the original home of the tribe to the S.W. of Bamako, hundreds of miles in the interior. It is probable that the name Wangara is of Hausa origin; at any rate there is not the slightest evidence that the Nasamones came in contact with Bantu-speaking people anywhere near the Garamantes; if the Nasamones reached the Niger, there is no trace of Bantu so far west and north as the great bend, which is the only point where they could have attained the river on leaving the desert; if, on the other hand, they reached the Bahr el Ghazal, they were remote from the Garamantes and the argument that there is proof of the early passage of the Sahara in a westwardly direction breaks down.

As regards the origin of the pillars, it is incorrect that there are no worked stones in a country occupied by a negro people; I need only mention the ruins in the Lobi country near Gaua, which are of worked stone, and the carved stones described by Desplagnes. As Hanno mentions by name all the five colonies in the south of Morocco, it is in the highest degree improbable that he founded others in an area so remote as the Gambia without even mentioning the fact; nor is it clear why, if such a station existed, stonecutters should be imported to please the chiefs, who knew nothing about stone work. That the Carthaginians had no trading station anywhere near the Gambia seems clear from Herodotus, IV, xcvi.

The general argument as to the pillars suffers from two defects:—(1) it ignores the work done on the immensely larger material in French territory; the Sine station alone contains nearly fifty circles. (2) After starting with the proposition that all the stones of a circle were erected at the same time, it discusses the age of the circles on the assumption that the number of stones shows the number of burials, which could only be the case if they were set up in succession and not simultaneously.

The philological argument suffers from more than one grave defect: (1) If *Ndar* is the name of the river formerly known as Daradus and *dekh* is the second component, meaning "river," the first word is apparently a genitive dependent on *dekh* but the Wolof order puts the genitive second; *Ndar* appears to be the name of the island on which St. Louis stands; if it is also the name of the river, the following word is more likely to be an article; but it is a pure guess that the word Daradus is divisible. If it is and the derivation suggested for *Bambotus* is correct, it is clear that the name *Daratites* would not be applied, for *-dus* was recognised as meaning "river." (2) The *-tus* of *Bambotus* is explained as an erroneous analogy from Daradus, though *-dus* is explained as meaning "river." It is highly improbable that travellers would juggle with native names in the way suggested; but, if they did, the argument implies that the Mandinka name for the river was *bambo*, crocodile. This is an unlikely name. There is nothing to show that the Mandinka were in the neighbourhood, or even in existence; if they were, it will take a good deal to prove that their language has undergone no change in two thousand years. It would be hazardous to explain river names from modern Welsh. (3) If place-names are to be explained from a given language, those names must be dealt with which from their phonetic make-up must form part of the language in question, and cannot form part of any other. But Buluba might belong to almost any negro language, and the meaning given is improbable, for where do we find villages named "south" or "north"? All the other names are more or less manipulated before they can be interpreted as Mande words, and three are given up altogether. It is not even probable that they are Mande names. On the other hand, with such towns as



Fotiskum and Katagum in the Kanuri country of the present day, the -cum termination is explained, if we assume that the phonetics of Kanuri are the same to-day as 2,000 years ago.

N. W. THOMAS.

### Religion.

Rose.

**The Temple of Atargatis at Hierapolis.** By H. J. Rose.

18

In MAN, 1923, 110, the author quotes "Purchas his Pilgrimage" for some curious features of the above shrine. I would point out that Purchas is inaccurately repeating, whether at first hand or not, the description in the work "De Dea Syria," generally, though not with certainty, ascribed to Lucian (second century A.D.). I cite a few of the relevant passages; the original is in would-be Ionic, a learned imitation of the dialect of Herodotos.

(1) (Section 28). "The porch [*propylaia*] of the temple faces the north wind and is in greatness [i.e., probably, length] about an hundred fathoms; in [or, on] this porch\* also stand the *phalli* which Dionysos put up; their size [= height] is 30 fathoms. On one of these *phalli* a man climbs twice in each year and lives on top of the *phallos* the space of seven days."

From the rest of the description, the *phalli* were slender pinnacles, which were climbed with the help of a rope around climber and pinnacle; "if anyone has not seen this, but has seen men climbing palmtrees in Arabia or in Egypt or elsewhere, he can understand what I mean" (section 29). That they really had a phallic significance there is nothing to indicate; Lucian's arguments are too weak and fanciful to be worth quoting. The date of the temple, originally supposed to have been founded by Dionysos, was about B.C. 300, as appears from section 17.

(2) The sacrifice by throwing. That part which concerns the animals is correctly given by Purchas; Lucian continues: "Some have actually flung down their own children thence [viz., from the porch], not in the same way as the beasts, but they put them in a wallet and cast them down, at the same time mocking them and saying they are not children but cattle" (section 58). Nothing is said about a rope; the error perhaps originated from misunderstanding the verb *κατάγουσιν*, "they cast down," since it has that meaning only in late authors (see van Herwerden, "Lexicon Suppletorium," s. u.), and signifies "lead down" in classical Greek.

H. J. ROSE

### REVIEWS.

#### Jews : Anthropometry.

Wagenseil.

*Beiträge zur physischen Anthropologie der spaniolischen Juden und zur judischen Rassenfrage.* F. Wagenseil. Schweizerbart, Zeitsch. f. Morph. und Anthr., XXIII. Stuttgart, 1922. 115 pp., tables and plates.

19

This paper deals mainly with observations and measurements on 142 men and 62 women of the Sephardim in Constantinople in 1918. They are a strong, fine limbed, muscular stock with a rather small span, the head index is usually below 80.9 (only 21 men and 12 women exceed this), and a number, especially among the men, are below 75.9. The relation  $h/b$  works out at an average of about 83 per cent. and is said not to reach 100 per cent. at all. The face is usually oval or nearly so, but a good many have pointed chins, contributing markedly to the facial outline. The nose is usually broad rooted and rather on the high side; it is less often concave than either straight or convex, it is rather what is often called "classical" than what goes by the name of "Jewish," and is so depicted in caricature. The lips are usually rather thin and the mouth smallish. The skin is usually dry and much inclined to a brown tint. The hair is slightly wavy or almost straight and

\* ἐν τοῖτοις τοῖσι προπυλαίοις.



dark in most cases, though a woman here and there has hair in short waves; it is usually rather thick, and baldness comes early. Beard is strongly developed. The eyes are grouped as dark or light, the former being those with brown pigment :—

	Men.	Women.
Dark - - -	86.6 per cent.	74.6 per cent.
Light - - -	13.4 per cent.	25.8 per cent.

Many tables of measurements are given, including measurements for the individuals and correlation tables comparing Spaniolish Jews with 150 South Russian Jews. He notes that the latter are much broader and shorter headed, with indices averaging about 82.5 in place of 78.0. There is more blondness of hair and lightness of eye among the South Russian Jews, and their complexion may be lighter too. The South Russian Jew he takes to be very near the Armenian type and he accepts von Luschan's view of the early complexity of race among the Jews in Palestine. He, unfortunately, hardly discusses Salaman's views about the Jewish people, beyond urging that in his "Heredity and the Jew" (*Journal of Genetics*, 1911), Salaman unfortunately cannot give details of a sufficient number of generations.

H. J. F.

### Psychology.

Bartlett.

*Psychology and Primitive Culture.* By F. C. Bartlett, M.A. Cambridge University Press. Pp. IX and 294. 8vo. 8s. 6d. net. **20**

The "psychologist's fallacy," that of projecting the mentality of the observer upon the subject so that the behaviour of the latter is explained in the terms of the mental processes of the former, has long been recognised, and every student is warned against this besetting sin. Nevertheless, even the leaders are constantly entrapped, and in no branch of the science can such fine examples of the fallacy be demonstrated as in that which deals with the mental processes of primitive populations, especially if the psychologist has adopted the "individualistic" standpoint and resorted to "introspection" as his method of observation or interpretation. Mr. Bartlett's able book should do much to deliver field psychology from this affliction.

In the first place he emphasizes the importance of making a full description of group behaviour the first task. The activities, customs, rites and folk-lore of the primitive group present abundant material, which should at first be studied objectively. They exemplify certain principles and mental laws which must form the basis of scientific social psychology, and it may well be, as the author maintains, that "the underlying psychological mechanisms remain much the same at all stages of social development."

The outstanding contribution of this volume is that it presents a well-reasoned case for a new method of analysing the facts of group mentality, whether primitive or civilised. Mr. Bartlett applies the behaviourist methods to the complexities of group responses: for example, examining the folk-story he shows that the matter and form of the story cannot satisfactorily be explained in terms of the mentality of the story-teller, but is a social product, developed for and told to listeners to whom it makes a common emotional appeal, in which the "fundamental instinctive social relationship tendencies," such as comradeship, assertiveness and submissiveness, find a natural expression. The listeners influence the narrator, and indirectly the folk-story, in many ways, such as by the demand for stories that provoke astonishment and laughter, and a rejection of stories of fear and flight, unless these are concerned with the supernatural. Passing from the folk-tale to ceremonial, the author notes that the production of fear at once assumes a most important rôle; but ceremonial



holds society together in a different way to the folk-tale and is concerned often with the aggrandisement of a particular section or caste of the group.

The plea for a new method of observation and interpretation of group activities is only one of many stimulating trains of thought. Mr. Bartlett, in his preface, points out that he was in close touch with Dr. Rivers during the preparation of this book, and it may be regarded as carrying on the principles which Dr. Rivers was the first to apply in the field bordering on psychology, sociology and the anthropology which in the broader sense embraces them both.

F. S.

### Africa, East: Ethnography.

Roscoe.

*The Bakitara or Banyoro. The Banyankole.* First and second parts of the report of the Mackie Ethnological Expedition to Central Africa. By John Roscoe, M.A. Cambridge: at the University Press. 1923. Pp. 370; 176. Each 9 × 6. 25s. and 15s. net.

21

These two volumes contain the first and second instalments of the report of the expedition which owed its inception to Sir James G. Frazer, and which was financed by Sir Peter Mackie and conducted by (and apparently composed solely of) Canon Roscoe under the auspices of the Royal Society. The tribes now described occupy the western areas of the Uganda Protectorate, and the present reports supplement, and in some degree correct, the information given in the author's "Northern Bantu," published in 1915. Canon Roscoe uses the past tense throughout. This does not mean that all the customs and beliefs described have died out, but it does mean that, owing to the tribes' partial Christianisation, many of these are obsolete. He leaves us in doubt as to the extent of the obsolescence. Information was collected from elderly men who knew no English, and, in the case of the Bakitara, this verbal information was supplemented by "a week's pageant of the ceremonies of old," arranged by the king. In the hands of a less experienced observer and linguist these methods could not have produced such excellent results as these volumes afford.

The main interest of these tribes consists in the fact that they are each composed of two sections, the one negro and the other negroid. On the one hand, there is the Bahima (or better, Bahuma) aristocracy, which represents Negro-Hamitic invaders whose traditions seem to point to their being of Galla stock, and who at some remote unknown period subdued the aborigines. These latter are the Baheru, the serfs. They have, as far as we know, always been agriculturists, and they still provide the artisans and, among the Bakitara, the rainmakers. The Bahuma, on the other hand, are cow-men and despise all manual toil apart from that involved in cattle-keeping. Mr. Roscoe does not enter into linguistic questions. The two tribes now speak closely allied Bantu dialects of an archaic type. Probably the invaders found them speaking such dialects, and since there is now no distinction between the speech of the invaders and their serfs, it seems to mean that the invaders adopted the language of the aborigines. In other respects the assimilation is far from complete. Among the Banyankole intermarriage between Bahima and Baheru is still prohibited. Some of the Bakitara clans have also kept rigorously apart and show little trace of negro blood, but exhibit, Mr. Roscoe says, "early Egyptian or Roman type of feature." Other clans, however, have not been so scrupulous, and through intermarriage with favoured Baheru families an intermediate class has grown up and to this the name Banyoro is properly applied. The stringency of the old food regulations has been largely modified. The Bahima at one time lived almost entirely upon milk; if they ate beef, they were not allowed to drink milk for at least twelve hours thereafter; vegetable food was taboo. A certain laxity has now crept into the observance of these and other customs. The tribes were divided into totemic



clans and the law of exogamy prevailed, qualified among the Bakitara, who allowed marriage between members of sub-clans if their secondary totems differed. The royal totem was the bushbuck.

The religion conforms on the whole to the Bantu type. A high-god was recognized and named Ruhanga by both tribes. This name is the equivalent of Shahupanga found among the Central Bantu, *h* in the Nyanza dialects taking the place of the more archaic *p*; it means, the Creator, or rather Constructor. Mr. Roscoe is rather at a loss to account for a secondary name given to the high-god, viz., Enkya or Enkyaya Enkya; we would suggest that it is identical with the Masai Engai, and was either brought in by the Bahuma or borrowed later from the east. Mr. Roscoe's impression is that the belief was entirely monotheistic, but it did not exclude a recognition of demi-gods who once were men. These were similar to the demigods worshipped by other Bantu tribes, except that they were departmental deities, having to do with war, harvest, etc., and not patrons of districts. They were named Bachwezi. As usual among the Bantu the really important supernatural beings were the ghosts, *mizimu*. The Banyankole dedicated cows to them and offered them milk daily. The Bakitara named children after their ancestors, but regarded the ancestor, not as reborn in the child, but as its patron or guardian. Snake-worship was found among the Bakitara; wells and hills and rivers were the dwellings of spirits, but Mr. Roscoe does not make it plain whether these were ghosts or nature-spirits. The Banyankole, whose drum-customs are of special interest, believed in, and regularly made offerings to, drum-spirits. Detailed information is given about the rain-makers and diviners. Students of taboo will find much to interest them, particularly in the taboos regarding milk. On this subject there is much that puzzles us: why, for example, was it taboo for a prince to cut all his nails on the same day? The most valuable part of Mr. Roscoe's work is his full and careful description of the life of the king and other members of the royal families. Especially among the Bakitara the king was hedged about with a most complicated system of taboo and convention; he was the high-priest, and was regarded almost as divine. The Bakitara welcomed the birth of twins; the Banyankole did not rejoice over them, but did not treat them unkindly. Initiation in both tribes was very simple, and consisted almost entirely in knocking out six of the lower teeth. Witchcraft, which plays so large a part in the life of other tribes, is but little spoken of in these volumes. It is impossible to do more here than refer in this cursory manner to some of the points in these very full and valuable books. Mr. Roscoe's description is severely objective throughout. He has done his work well. Our only regret is that the photographs are not equal in quality to the text.

EDWIN W. SMITH.

### CORRESPONDENCE.

Britain: Archæology.

*To the Editor of MAN.*

Glendenning.

#### Mr. S. Hazzledine Warren's Views on Eoliths.

SIR,—I have only just noticed a serious fallacy in mechanics in an article by Messrs. Reid Moir and Barnes (*MAN*, 1923, 74). The coincidence of the holiday season must be my excuse for having overlooked the article at the time.

I have no wish to enter into the general discussion involved in this and previous articles, even if it would be right to bring the matter up after this lapse of time, but I think you will agree that errors of fact should be corrected under any circumstances.



The question is one of Subsoil Pressures, and the writers claim that a vertical pressure on the top of a stratum of sand is not carried on vertically downward, but is transmitted laterally. If this were so it would be contrary to Newton's Third Law of Motion, which in modern language reads "to every action there is an equal and opposite reaction."

Nobody disputes the fact that one effect of downward pressure on sand is a lateral thrust in all directions, as, for example, occurs when one attempts to build a pyramid of billiard balls. But these secondary lateral forces balance each other, and by no method of "compounding of forces" can they be shown to balance or neutralise the downward force at right-angles to them.

The experiments cited by the writers prove that sand spreads sideways, and that, when confined by the rigid wall of a relatively small tube, it will arch and jam across the bore. This does not prove what happens to sand in bulk.

A very homely illustration best serves our purpose. A contractor's cart about 2 feet 9 inches square contains a ton of sand. According to the arguments of Messrs. Moir and Barnes the sides of the cart may burst, but the bottom will never tend to fall out. It does not take much common sense and experience to see that, whatever may be happening to the sides, there will always be a ton on the bottom board while the cart is full.

I am sorry also to see that the writers repeat an old mistake as to the experimental pressures used by Mr. Reid Moir, giving again the figure of 300 tons *per square inch*. If they will get their 8-inch diameter cylinder, filled with sand, with a rubber ram, tested to destruction by the National Physical Laboratory, I will pay the cost if they are right, and go halves if the figure exceeds one-tenth of that claimed.

Yours faithfully,

S. E. GLENDENNING.

## Sex Ratios.

*To the Editor of MAN.*

Parkes.

SIR,—Mr. Thomas (MAN, 1923, 112), in criticism of my note on the sex-ratio, (MAN, 1923, 97) brings forward some facts of interest, but does not greatly diminish the validity of my original contention that the sex-ratio of coloured races tended to be lower than that of white. In the case of the Ibo of Awka data, which alone of Mr. Thomas's figures are appreciably numerous, he admits that monogynous matings produce an excess of females and that the big excess of males is found in polygyny. As there is evidence that polygyny raises the proportion of males it is obviously unsound to compare polygynous coloured matings with monogynous white matings.

Mr. Thomas's Ibo and Sierra Leone data for first births and first wives are far too few to draw any reliable conclusions from. The probable errors of the ratios given by them would be very large. Little's investigation, on the other hand, was made on very extensive data and with due regard for the probable errors of the ratios, and for the probable errors of the differences between the ratios. The conclusions of Newcomb and of Heape were also based on a great amount of material.

The ease with which parturition is accomplished is no criterion of the amount of prenatal mortality. The females of other mammals have even less trouble with birth than the woman mentioned by Mr. Thomas, yet the amount of prenatal mortality is in many cases known to be very great. Also, the prevalence of miscarriage and abortion is no strict guide to the amount of prenatal mortality. In whites, at any rate, the bulk of intra-uterine mortality occurs very early in gestation and has few or no outward manifestations.

Maurel (*Revue Scientifique*, 1902) gives the sex-ratio for Greece as 113·8.

Yours faithfully,

A. S. PARKES.



Religion.

Raglan.

*To the Editor of MAN.***The Origin of the Polite Plural.**

SIR,—1. In Arabic the polite plural is used to a considerable extent by the officials and educated classes in the larger towns, but by nobody else. 24  
It is not found in the Quran, and is probably a late importation into the language.

2. So far as I can ascertain, the first English sovereign to be styled "Majesty" was Henry VIII in the Act of Supremacy.

Was he so styled solely as Head of the Church?

Yours faithfully,  
RAGLAN.

Sinai: Archæology.

Seton-Karr.

*To the Editor of MAN.***Palæolithic Implements from Sinai.**

SIR,—In reference to MAN, 1923, 123, may I add that the implements from Sinai to which I referred are now in the Alexandria Museum. In Palestine during the War I found some palæoliths near Bethlehem, shortly after the capture of Jerusalem. I brought a number of selected specimens from a house near the City of Jerusalem, where they had been stored by a collector, who obtained them from all over the surface of the country with the help of some Arabs, and these are now in the Geological Museum in Cairo. Others, as I previously mentioned in this Journal, I found near the Suez Canal. These are now in the office of the Canal Company at Suez. 25

Yours faithfully,  
H. W. SETON-KARR.

**ANTHROPOLOGICAL NOTES.**

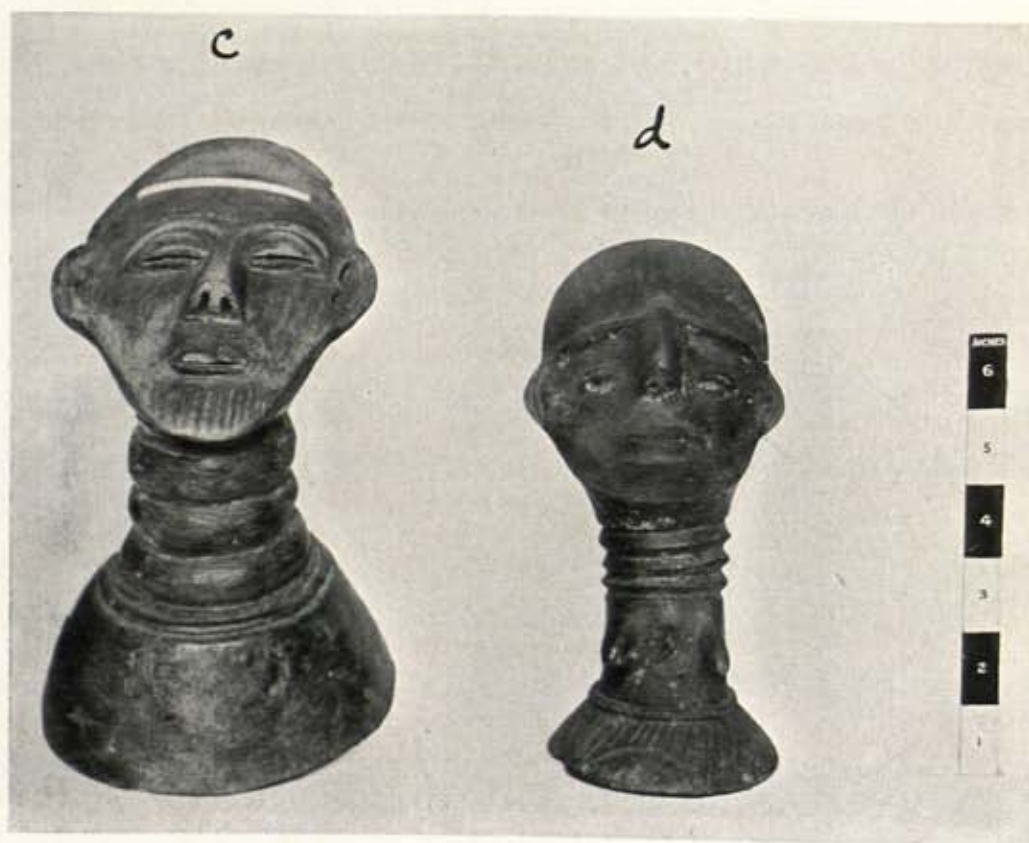
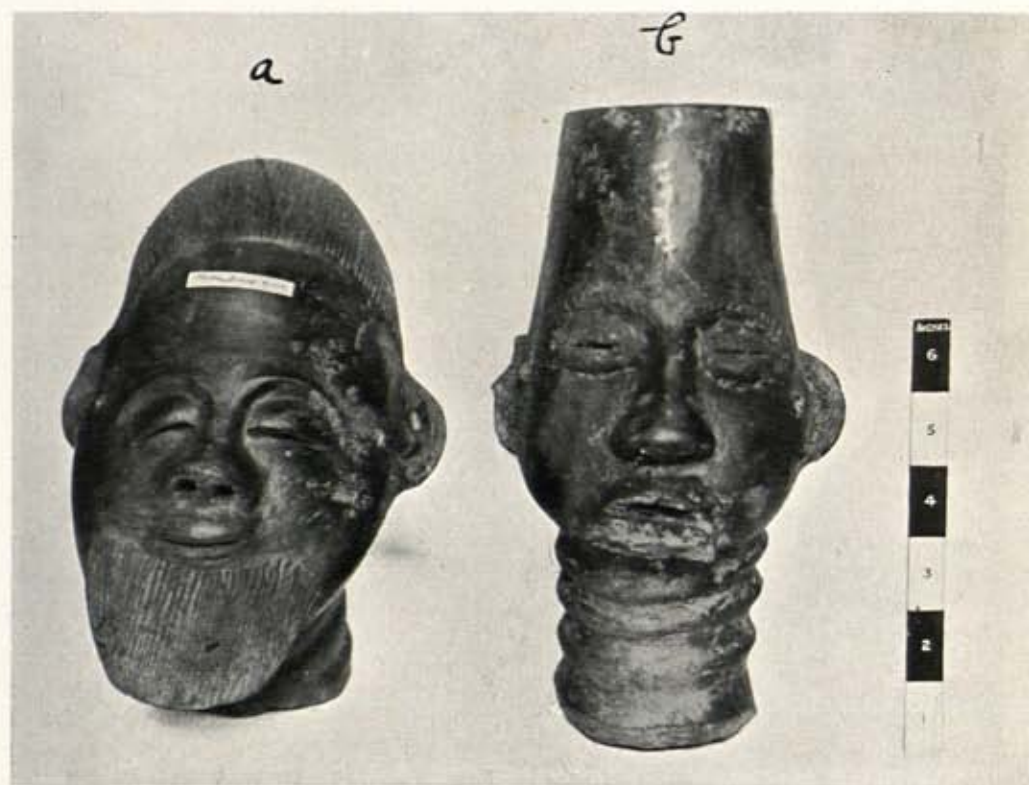
*Medal for Anthropological Work in the Field.*—The Council of the Royal Anthropological Institute has decided to offer a medal or medals for specially meritorious work in the field. Not more than two medals are to be awarded in any one year. The award will rest with the Council, after consideration of nominations to be submitted to it by not less than six Fellows of the Institute, three of whom must be members of the Council. Other things being equal, the Council, in making its award, will give preference to Fellows of the Institute and British subjects. It has been decided, further, that the medals are to be known as the Rivers' Memorial Medals. 26

The question of the design for the medal is now under consideration, as well as that of ways and means. It is hoped, however, that it may be possible to arrange for the first award to be made during the current year.

*Edinburgh and Lothians Branch of the Royal Anthropological Institute.*—A report has been received on the first year's working of this Local Branch of the Institute. The first general meeting was held on 2nd November, 1922, the Branch then consisting of 12 Fellows. During the year this number was increased by 4, the present membership being 16. The inaugural meeting was held on 6th February, 1923, when Sir Everard im Thurn, Vice-President, spoke on the "Practical Application of Anthropology." Among other papers read during the session were:—David MacRitchie, Esq.—"Finn Tradition in Scotland"; Sir Everard F. im Thurn—"The Red Man in Guiana"; and Professor A. H. Sayce—"The Anthropological Importance of Asia Minor." Captain Pape, who acted as Hon. Secretary during the first year, has resigned owing to other engagements, and his place has been taken by Mr. R. Kerr of the Royal Scottish Museum.







CLAY HEADS FROM SEKONDI, GOLD COAST.

## ORIGINAL ARTICLES.

## With Plate C.

Africa, West: Art.

Kerr.

**Clay Heads from Sekondi, Gold Coast.** *By R. Kerr.*

27

The Royal Scottish Museum has recently received, from Gilbert M. Hunter, Esq., Iquique, Chile, the miniature human heads from Sekondi, Gold Coast, modelled in clay, which are illustrated on the accompanying plate. As such objects appear to be very rare in museum collections in this country, and as authentic information about them is extremely scanty, I venture to place on record a description of the four specimens now exhibited at Edinburgh, together with the donor's account of the circumstances under which they were found and secured. If any of the readers of this note can shed further light on the origin and meaning of these interesting objects, it is to be hoped that they will also publish the facts known to them.

All the heads are of coarse, rather soft, grey clay, blackened and burnished. The two larger heads (*a*, *b*) are hollow, and are not complete, the edges at the base of the neck being broken; probably they were originally provided with bases like *c* and *d*. The chin and right ear of *b* are also damaged; otherwise the heads are perfect. In the case of *b*, the head is curiously prolonged upwards, and terminates in a flat truncation. Hair and beard are indicated in *a*, and beard in *c*, by means of parallel incisions. The face of *a* is tilted upwards, and the whole head is somewhat unnaturally flattened from front to rear, a conventionalisation which is carried still further in *c* and *d*, where the heads are discoidal. Nipples are indicated on the base of *c*, and breasts protrude from the columnar part of the base of *d*. The wide nostrils and thick lips of *b* are decidedly negroid, in contrast to the smaller, more refined features and well-grown beard of *a*; in *c* and *d* the features are merely conventional. Small cicatrices are represented in front of the ears of both *a* and *b*. The necks are in all cases corrugated, and the eyes are represented as closed.

These objects were obtained by the donor some 25 years ago, under the following circumstances. While in camp some distance inland from Sekondi, on the Gold Coast, news reached him of the discovery by a colleague of a native graveyard, on each grave in which were placed curious heads. Details having been supplied as to the exact locality, Mr. Hunter himself visited the graveyard, which was in the bush, some distance from the path leading to Tarquah, near the village of Mansu, on the Sekondi-Kumassi Railway, about 17 miles from Sekondi. The graveyard was a small clearing in the bush, fenced in with wattles, but neglected and overgrown. It was studded all over with low burial-mounds, on most of which were placed clay heads. The carriers, who could not be induced to approach the graveyard without a great deal of coaxing, said that the heads were very old, that they represented dead chiefs and their wives, and that as such they were sacred. Further details were not obtainable from them. Mr. Hunter took four of the heads, and, after a somewhat anxious interview with the chief of the neighbouring village, who was curious as to the purpose of his visit, succeeded in getting them away safely.

R. KERR.

Egypt: Archæology.

Burchell.

**A Note on two Objects found among Tombs of the Old Kingdom at El Kab.** *By J. P. T. Burchell.*

28

The object of this paper is to bring to notice two articles found by Mr. Quibell among the tombs of the Old Kingdom at El Kab in 1897. Full particulars of these specimens, which came into my possession through the late Sir John Evans,



may be found upon consulting the following pages of the publication issued in the succeeding year by the Egyptian Research Account<sup>o</sup> :—

Page 4, ss. 7.

"To the west of this is the compound mastaba marked C on the plan.

The southern half was built later than the northern, the panelling of which can be seen inside the first wall beyond the crop wall. The spaces marked 1, 3, and 6 are only chambers filled with clay; 2, 4, and 5 are all tomb-wells. The well 4 is exceptional in that its chamber was to the west end, not to the south. It was 5.3 metres deep, and scattered through the earth



FIG. 1.

in it were coarse pots of the types in Plate XII." (32, 33 *inter alia*.)

Page 19, s. 34.

"Of the IVth Dynasty."

Page 8, ss. 11.

"Most were well known before, but 26 and 33 are *new*."

And I claim that this "new" form, for which, up to the present no definite use has been assigned, represents a prototype candlestick of the IVth Dynasty. In order to substantiate this claim I propose to draw attention to certain evidence, both material and documentary. As a starting point there is none better for my purpose than the recent discoveries of candlesticks in the tomb of Tutankhamen, which open up for investigation two interesting, but little explored subjects :— (a) The method of domestic artificial lighting in Egypt; (b) The rôle played by artificial lighting in the funerary customs of the Egyptians. In all, four bronze candlesticks were found in this tomb, and in the socket of one of them a candle still remained. At the present time I have no accurate information as to its composition, though in all probability we shall hear that it consisted of twisted strands of dried flax dipped in tallow. Since copyright restrictions have hindered Mr. Howard Carter from granting me permission to reproduce a picture of one of these candlesticks it may be well to give a brief account of their construction. The candlesticks may be divided up into five component parts :—

- (a) The wooden block upon which the whole is mounted.
- (b) A bronze socket in which the candle is fixed.
- (c) A rod fixed inside the socket, to which the candle itself was tied at several points.
- (d) Two bronze supporting arms, one fixed on either side of the socket, which give out at right angles on to the handle.
- (e) The handle, after the form of the sign of life, and fixed perpendicular to the block.


The maximum height of the candlestick itself is 9½ inches. Next I would refer to the funerary inscriptions upon the walls of the tomb of the Steward Amenemhet,† which include representations of candles, both hieroglyphic and pictorial, thus confirming their use in the every-day life of the Egyptian of the



\* Quibell, "*El Kab*," 1898.

† Alan Gardiner, "*The Tomb of Amenemhet*," 1915, plate XXIII.



XVIIIth Dynasty. Translating the text alongside the right-hand figure we read:—"A light for the use of every day, illuminating the road of darkness for the Steward Amenemhet, everywhere that he goes." The symbol for light

being "teka"  Dr. Alan Gardiner gives the following description of this register\* :—"Seven men approach from the side of the entrance, each holding a lighted candle in the one hand and a jar of ointment in the other; the candle is red and white, and doubtless consisted of a wick dipped in tallow. Similar scenes are not of common occurrence in the Necropolis of Thebes; I have found such only in the tombs of Senemioh and of Menkheperasonb, both times in the outermost chambers, where they are obviously not appropriate. In the first-named tomb a man is shown pouring libations with one hand and holding a candle in the other. In the tomb of Menkheperasonb, besides other figures, there are five men similar in appearance to those represented in the tomb of Amenemhet."


The symbol for candle in each case is  An identical spelling of this same word "teka" may be found upon examining the burial records of Teta, the first king of the VIth Dynasty,† as follows:— .

Special attention is invited to the third component of this particular rendering of the word "teka," which I maintain to be comprised of four distinct parts:—

- (a) The pottery dish (probably with a socket in the centre).
- (b) The candle projecting above the level of the rim of the dish.
- (c) The flame.
- (d) The smoke given off from the flame.

And this would establish the use of candlesticks in the year B.C. 3330 of a form very similar to the two specimens from El Kab.

A further piece of documentary evidence is drawn from Sir Flinders Petrie's book on Medûm,‡ which supplies a reproduction of the IVth Dynasty fresco from the passage leading to the chamber of Atet. The scene has two features, the one on the left depicts a pair of oxen harnessed for ploughing,

 . . . . . and the other on the right the figure of a man, garlanded with a blade of corn and wearing two lilies around his neck. From the left shoulder a bag is slung, out of which

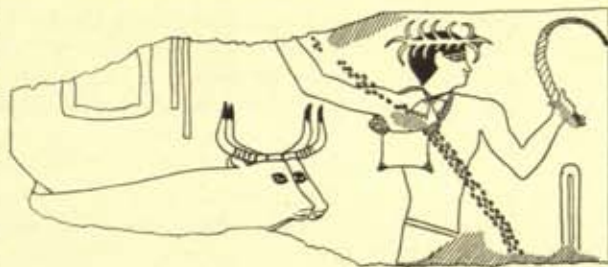


FIG. 2.

he is sowing seed-corn. In his left hand he holds what I suggest is a burning light, and I further suggest that this man is an Egyptian parallel to the goddess Demeter, who is frequently found represented with a garland of corn-ears, carrying the mystic basket and the light.§ Sir Arthur Evans, in his book "*The Palace of Minos*,"|| figures Cretan "candlesticks" of the Early and Middle Minoan Age of a shape and dimension similar to this "new form" of the IVth Dynasty from

\* Alan Gardiner, "*The Tomb of Amenemhet*," 1915, page 97.

† Maspero, "*Pyramides de Saqqarah*," 1894," page 110, line 4.

‡ Petrie, "*Medûm*," 1892, plate XXVIII, fig. 4.

§ Pliny, "*H. N.*," XXXIV," 8, sect. 19.

|| Evans, Sir A. J., "*Palace of Minos*," 1921, pages 578-9.



El Kab. This would agree with the other evidence of a relationship between Egypt and Crete *circa* 3000 B.C., which Sir Arthur Evans has summarised, and this relationship would afford an opportunity for the exchange, not only of objects, but also of ideas. It has been suggested besides the usual identification of  $\delta\eta=\gamma\eta$  earth, that the name Demeter itself is derived from a Cretan word  $\delta\eta\alpha\iota$  barley\*—thus symbolising the mother or giver of barley and food in general†. When her daughter Persephone was carried off by Pluto into the under-world, Crete, we are told, was the scene of the abduction.‡ Demeter and Crete are so closely interwoven that any foreign land coming into contact with that island could hardly fail to absorb so realistic a legend. The attitude of this suggested candle looks, at first sight, unnatural; but I think the right explanation to be simple. The action of a moderately hot sun on a tallow candle is obvious, the candle often being bent double. The burning of one of these Egyptian candles of  $1\frac{1}{2}$  inches diameter would generate a degree of heat sufficient to cause the cold fats speedily to lose their resistance and the fabric to bend. By the XVIIIth Dynasty, however, we have proof that this hindrance had been overcome, for the burning candle is then kept erect by a rod alongside to which the candle is tied at several places. An inspection of the candle and candlestick found in the tomb of Tutankhamen will confirm this. For the purpose of comparison, and as showing that the candlesticks

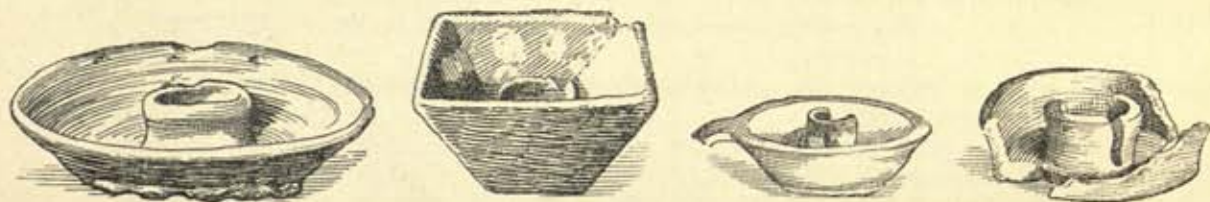


FIG. 3.

from El Kab are of a type not peculiar to the IVth Dynasty, I illustrate examples from Crete, B.C. 3000, Egypt of the XIIth Dynasty, Gaul of the second century after Christ, and Britain under the Romans. It is my hope that these few facts may be of assistance to any desirous of tracing the antecedents of the XXth century domestic candlestick.

I desire to offer my thanks to the Trustees of the British Museum, the Committee of the Egyptian Exploration Society, and Sir Arthur Evans, F.R.S., for their kind permission to make use of specimens and drawings, and to Dr. H. R. Hall for his generous help.

J. P. T. BURCHELL.

#### Assam : Technology.

Hutton.

**Plants used for Fibre in the Naga Hills.** By J. H. Hutton, C.I.E.

29

Of the plants in the accompanying list, two or three were collected by Mr. J. P. Mills (Lhota and Ao), three or four (Angami and Sema) by myself, and the remainder (Ao and Phom) by Mr. H. G. Dennehy. For their identification I am indebted to Mr. A. C. Tunstall of Toklai.

My object in publishing them is to elicit, if possible, similar information for tribes in other areas, with a view to establishing the distribution of these particular points of culture.

\* Smith, Wm., "Dictionary of Greek and Roman Biography," 1853, Vol. I, page 959, col. b.

† Homer, "Iliad," V., 500.

‡ Schol. ad Hesiod Theog. 914.



According to a Chang Naga tradition, the use of cloth was evolved from the use of fibre nets by women for carrying their children, and there still seem to be Konyak Naga villages in which women spin and weave in fibre, but buy their cotton ready woven. In the Ao tribe, however, weaving cloth from fibre seems to be known only to tradition, though the weaving of cotton cloth is practised by the whole tribe. The more highly cultured Angamis use both fibre and cotton for weaving cloth, both separately and together. The general inference seems to be that the use of fibre for cloth preceded that of cotton in these hills; but there are apparently tribes, out of contact with either Burma on the east or Assam on the west, who do not weave at all. Very few of the Semas can weave, those that do inhabiting the most westerly villages, and there are three villages of Southern Sangtams, equally remote from both Burma and Assam, who state that it is absolutely *tabu* for them to weave at all, so much so that when, in 1921, a few families of exiled Kalyo-kengyu from further north settled in Phorr (or "Photsimi") the village would not allow them to weave, in spite of the obvious advantage to themselves in acquiring a local supply of cloth.

Scientific name.	Nature of plant.	Vernacular name.	Naga tribe which uses the plant.	Purpose for which used.	Uses recorded elsewhere.*
<i>Girardinia heterophylla</i> , Dene	stinging nettle with three-pointed leaf and a very severe sting	<i>wüve</i> <i>merang taklentsu-tong</i> (i.e., "iron nettle" on account of the severity of its sting)	Angami Ao	weaving cloth weaving cloth, but traditional only; not in use now.	The leaf is eaten by Nepalis as a vegetable. The fibre is used in the Simla hills and in Garhwal for cordage and twine. Var., <i>palmata</i> is used by the Todas, and well-known as "the Nilgiri nettle."
<i>Urtica parviflora</i> , Roxb.	stinging nettle	<i>taklentsu-tong</i>	Ao	weaving cloth (traditional only)	—
<i>Boehmeria platyphylla</i> , Don.	dead nettle	<i>ganyü</i>	Angami	weaving cloth	—
<i>Villebrunea integrifolia</i> , Gaud.	small tree growing in stony soil near water	<i>jung-tong</i>	Ao	making fishing nets, bowstrings and cords generally, and, traditionally only, for cloth	Used elsewhere in Assam and in Sikkim for ropes, nets and coarse cloth. Also, apparently, in Yunnan and the Shan States.
<i>Pouzolzia viminea</i> , Wedd.	a shrub	<i>wükwei</i> (or <i>gakeh</i> )	Angami	weaving cloth	The leaves are eaten in Sikkim, and the fibre is used for cordage in the Eastern Himalayas.
<i>Sterculia villosa</i> , Roxb.	a small tree	<i>achitong</i>	Ao	cordage for tying cattle, and making string bags	Used for cordage by the Burmese, for elephant ropes and for bags in South India, and for cattle halters in North India.
<i>Sterculia colorata</i> , Roxb.	a large tree with very prolific red flowers growing at all levels up to about 4,000 ft.	<i>methang</i> (? = "reverberation")	Ao	thread for weaving cloth, but traditional only	—
<i>Grewia macrophylla</i> , Don.	a small flowering tree growing in precipitous places	<i>lungpangsong-tong</i> (= "precipice tree")	Ao	making slings for burdens and ropes for tying cattle	—
<i>Hibiscus macrophyllus</i> , Roxb.	a tall tree with a slender stem	<i>aka-tong</i>	Ao	do.	Used by the Burmese for cordage.
<i>Hibiscus</i> sp.	a dwarf tree with flowers changing from pinkish to yellow	<i>mesukamba</i> (= "deer's cotton,"† probably on account of its apparent resemblance to the cotton plant)	Ao	Traditionally used for thread for cloth, but actually only used occasionally for slings for burdens, and these slings are only used once and thrown away	—

\* See Watts, "Dictionary of the Economic Products of India."

† The Assamese also have a plant known by this name, but whether identical or not I do not know.



Scientific name.	Nature of plant.	Vernacular name.	Naga tribe which uses the plant.	Purpose for which used.	Uses recorded elsewhere.*
<i>Urena lobata</i> , Linn.	a shrub bearing prolific burrs	<i>kumenatau-tong</i> (= "hair-a-thering tree")	Ao	Traditionally, only, for cloth	—
<i>Triumfetta pilosa</i> , Roxb.	a shrubby plant bearing burrs	<i>pongzi-tong</i>	Phom	making fine thread bags, fishing nets, purses, etc.	—
<i>Pueraria thomsoni</i> , Bth.	a leguminous creeper, bearing clusters of deep purplish-blue flowers	<i>amulhu-keghi</i>  <i>enazü</i> †	Sema  Lhota	making fine strings for use as the heddle-leashes of looms	—

J. H. HUTTON.

## Malay Peninsula: Religion.

Gimlette.

**Smoking over a Fire to drive out an Evil Spirit.** By J. D. Gimlette. 30

A warning to the ignorant is published in the *Pengasoh*, a Malay contemporary of the *Nursing Mirror* (*asoh*, a nurse, nursing) of 16th February, 1923. In English a rough translation of the original Malay text is as follows:—

"A woman, named Meh Mas, aged about 19, daughter of Meh Lumat of Kampong Pasir, Penambang, in the town of Khota Bharu, was recently confined of a male child—her first.

"On the morning of Monday, 26th December, 1922, she began to feel the pains of labour. The midwife arrived at 11 in the morning. When the child came down for birth, the mother would not strain herself to hasten delivery, nor would she sit crossways, but had to be held by others. About 11.30 the child was born, perfectly formed, and the mother was unconscious for a while. When she came round and began to talk, words came pouring out of her mouth incoherently, and she took no notice of the child, and when it wanted the breast she refused it.

"As she appeared to be quite fit, and as the after-birth had all come away quite clean, it became evident to the *bomors* ('medicine-men') and midwives that she was possessed by the spirit known as *Miriam*, which always attacks the newly-confined. So each of them started saying incantations till they foamed at the mouth (all on account of the evil spirit, said the old woman in charge of the incantations). Next they took four black peppercorns and gave them, one each, to four strong men, who pressed the peppercorns with all their might into the bases of the nails of her thumbs and big toes. When they pressed, she screamed; and the more she screamed, the harder they pressed. All grew more and more astonished at the obstinacy of the wicked spirit which refused to come out of the woman in spite of such pain, and they said, 'wait till to-morrow' and then you shall suffer for this.'

"The whole day was spent in this way, and the night of Tuesday began. One of those present said that in cases of child-birth such as this it was customary to take 45 coco-nut shells and light candles in them. So they got the coco-nut shells as he advised; but the woman remained as before and would not have the candles lit. When this was so, they said 'she must be fumigated with smoke; but it is no good doing it from afar off in an obstinate case like this.' Accordingly they built an open-work dais, about 18 inches high, and put the woman on it. Then they burnt the coco-nut shells, and got the live embers from them, and put them into a receptacle, into which they added rotten and pungent

\* See Watts, "Dictionary of the Economic Products of India,"

† Cf. Mills, "The Lhota Nagas," p. 39, where *Pineraria* is probably a misprint for *pueraria*.



" ingredients, such as stinking sulphur, dried pepper, black pepper, and the like.  
 " They put all this under the daïs just level with the face of the woman and they  
 " turned her over on her stomach so that her face looked into the fire. When the  
 " pungent and stinking fumes rose up, the woman struggled; but they held her  
 " tight, and pressed her down so that she could not struggle. When this happened  
 " her language became more and more wild. Then the person who was driving  
 " out the evil spirit said, 'see how obstinate it is; don't let go until it comes out.'  
 " While this was going on, a man came past who was a *Guru* (a teacher) in the  
 " neighbourhood, and told them to stop. But they replied: 'This is not a *guru's*  
 " 'business'; and when a lot of other folk told them to stop, they said, 'You  
 " 'don't understand.'

" When daylight came, they saw that the woman's face was all scorched,  
 " and her breasts slightly so. When they saw this, for the first time they began  
 " to be rather frightened, especially her mother and her husband, although they had  
 " previously approved of the treatment. What more is there to be said? The  
 " woman grew more and more exhausted, and at noon on the Wednesday she died.  
 " The child survived seven days and then followed his mother. Let this be a  
 " warning to all not to follow any advice which reason cannot accept."

The *Pengasoh* is published in Kelantan, one of the Protected Malay States. The newspaper report refers to the wicked spirit as *hantu polong*, an evil thing well known to all Malays. It is generally supposed to be attended by its familiar, the *pêlêsit*, which takes the form of a house-cricket and sucks the blood of its victim. *Miriam* appears to be a local synonym.

J. D. GIMLETTE.

## China: Ethnography.

Edgar.

### A Strange Milking Custom.

By the Rev. J. Huston Edgar.

31

In Herodotus's Fourth Book entitled Melpomene we find the following item, which has been used by Swift as an illustration in Section VII. of his "Tale of a Tub": "Now the Scythians blind all their slaves, to use them in preparing their milk. The plan they use is to thrust tubes made of bone . . . up the vulva of the mare, and then to blow into the tubes with their mouths, some milking while the others blow."

In 1903 the writer, when travelling through a sequestered and unknown region (about 102 E., 31 N.) on the right bank of the Tatu or Tung River\* south of Romi Drangu, found a custom similar to the above in general use. The women here prepare the cows for milking by blowing lustily into the vulva, and continue to titillate the sensitive parts of the generative tract. After a short period of preparation the milking begins and, while this is proceeding, another girl continues her disgusting duties. The people where this custom is found are lamaists, but of the ancient Yung or Hsifan stock. Their object in continuing the practice is to milk the cow dry without the presence of the calf as an exciting agent. This is distinctly a convenience, because in Sze Chwan, as a rule, if anything happens to the calf, the cow refuses to give any more milk.

If we remember that these people are probably immigrants from the North of China, and may be descendants of the Hsiung Nu themselves, we might have here in this custom a link with the old Scythian hordes of Herodotus's day.

In any case, few regions are less likely to be influenced by conquests or migrations than those where the custom is in vogue. I have neither seen nor heard of any such usage in Tibet proper.

J. HUSTON EDGAR.

\* Also known as the Takin Chwan.



India : Sociology.

Sen-Gupta.

**The Early History of Sonship in Ancient India.** By Nares C. **32**  
*Sen-Gupta.*

Mr. Chattopadhyaya in MAN, 1922, 25, and Mr. Rose in MAN, 1922, 87 and 96, have discussed some interesting aspects of this question. One notices, however, a serious defect in these studies in the Hindu doctrine of Kinship in that no account is taken in them of the very long and complicated history of the laws and institutions of ancient India.

Yet a great deal certainly depends on a proper historical perspective. No one can study the Code of Manu side by side with the Samhitas and Brahmanas and Kalpa Sutras without being convinced of the great length of history that lies between them, a history in the course of which social institutions have often been transformed out of shape. The same thing might be said of the gap between the Laws of Manu and the customary Laws of the India of to-day.

The story is further complicated by the baffling diversity of the forces that have played upon that history. The social history of India is a web of a multitude of strands of diverse culture. There is, first of all, the Indo-Germanic culture of the Arya immigrants. This culture apparently had a long history in an atmosphere of conflict and intercourse with the Babylonian and the Semitico-Aryan civilisation of the Persian Empire. Within India it came into intimate contact with Thibeto-Burman, Dravidian, Kolarian and other societies and institutions. It is, no doubt, not possible at this date to indicate precisely the points at which modification in the Arya sacred law occurred, and how the sacred law itself reacted on the primitive customary law of non-Arya origin. But there can be no doubt of the existence of these influences, and they make themselves felt in various places too clearly to be ignored.

In this paper I shall try to indicate briefly what I conceive to be the true story of the evolution of sonship in Hindu law.

There is one remarkable fact about this which I consider to be very significant. There is no ceremony appropriate to the affiliation or adoption of a son in the Grihya sutras, which give all the rituals that a man goes through from conception to death. In later ceremonial law, adoption has been associated with some ritual, but this ritual is an adaptation of rituals proper to ceremonies connected with *aurasa* sons.

Now, when we recollect that from the Rig Veda downwards the entire Arya religious literature is full of an inordinate hankering for sons and of the vast importance of sons, and that no important incident of the life of an Arya was unaccompanied by an appropriate ritual, the importance of this omission in the Grihyas cannot be denied. I take this to signify that in the earliest days of Arya society in India, the only son recognised was the *Aurasa* son, or the son begotten on a lawfully wedded wife.

If we exclude the literature from the Dharmasutras downwards, there is really nothing opposed to this hypothesis that the Arya immigrants brought with them no institution of secondary sons. The story of Sunahsepha in the Aitareya Brahmana is really no exception. The secondary sons vouched for by the later law books would in this view seem to be an institution of later growth,\* and an institution which grew up under the influence of other societies surrounding them.

\* Zimmer, in "Altindisches Leben," p. 318, after giving the texts of the Vedas showing the hankering of the Aryas for sons, points out: "Nicht soll man glauben er könne durch Adoption ersetzt werden, denn 'Was von einen andern gezeugt ist keine Nachkommenschaft.' " R.V." 7, 4, 7; also texts cited in the same place. This is entirely sound. It implies that, although adoption into families was not entirely unknown, the adopted did not rise to the position of a real son.



In the Dharmasutras, however, the twelve kinds of sons have already come into existence. Gautama, the oldest of extant sutra writers, already speaks of the twelve kinds of sons. The enumeration of these kinds and their order of precedence differ greatly in the different Dharmasutras and the metrical Dharmasastras. It would be too long to give the various views represented in these different authors side by side. I shall, therefore, content myself with quoting Vasistha's Dharmasutra for comparison with that quoted from Manu by Mr. Rose :

" Of the numerous kinds of sons, only twelve are found in history :—

" (1) Self-begotten, *i.e.*, begotten on one's own married wife, is the first;

" (2) Begotten on the appointed (widow?) is the second;

" (3) The third is the Putrika . . . . .

" (4) Paunarbhava is the fourth. Punarbhū is she who renounces the husband of her first marriage and lives with another man and adheres to the latter's kindred. She also becomes a Punarbhū who marries a second husband after renouncing a eunuch, a fallen (patita) or a lunatic husband or upon the husband's death;

" (5) Kanina is the fifth, the son of a maiden who gives birth, through lust, to a son in her father's house, without marriage; it has been said that that son belongs to the maternal grandfather; . . . . .

" (6) Where the birth is secret (the son) is gudhotpanna (secretly begotten) who is the sixth. These are the heirs and kinsmen . . . . .

On the other hand, the six who are not regarded as heirs but only as kinsmen are the following :—sahodha (the son of a pregnant bride); dattaka (the adopted son); krita, or son purchased; swayamupagata (the son who comes of himself); apavidha (or the son turned away by his parents), and the son of a Sudra girl.

Considering that Vasistha's text represents an older state of society than that represented by Manu, it would seem that many of the conclusions of Mr. Rose on the evolution of secondary sons founded on the text of Manu require considerable revision.

The evidence is overwhelming that in the older law the Putrika and her son and next to them the Kshettraja son, occupied the position of the greatest importance, at a time when the Dattaka was hardly recognised.\* I shall try to indicate the history of these two classes of sons as I understand it, before proceeding to the consideration of the probable evolution of other kinds of sons.

Let us first take the Putrikā. In the Vedic marriage ceremony and the ceremony of the Grihya sutras, a Putrikā is out of place. For the essential part of marriage is the *vahatu*, or the carrying away of the girl to the bridegroom's house—permanently, as Zimmer points out. And naturally we find no trace of the Putrikā in the literature from the Samhitās to the Grihya sutras. In the Mahābhārata we hear of Putrikās espoused by Arjuna.† It is significant, however, that both these brides of Arjuna were girls of what is now Assam, which was certainly, at that date, outside the pale of Arya civilisation.

I think that the weight of evidence points to the conclusion that the institution of Putrika was borrowed by the Arya settlers from their neighbouring tribes, among whom marriage of the *beena* type‡ prevailed. There is no doubt that Arya society was in the remote past surrounded by such societies amongst whom daughters did not leave their father's roof after marriage. Assuming, as we may, on the evidence of the Grihya sutras, that the early Arya society was strictly

\* Gautama Dharmasutras XVIII, 32, 33, gives an entirely different position to the Putrika's son, and does not mention the Putrika at all.

† Ulūpi and Chitrāngadā, both of whom I take to be Putrikās.

‡ I adopt the nomenclature of Robertson-Smith in "Marriage and Kinship."



patriarchal and exogamous, so that girls, on marriage, would have to leave the father's roof permanently, we may easily imagine circumstances of society in which such marriages may not have been desired by sonless parents. The example of societies in the neighbourhood who kept their girls with them after their marriage and became the owners of the children of the girl, would suggest the institution of Putrika or appointed daughter to the Arya. The texts make it clear, however, that this could only be secured at first by a clear agreement at the time of the marriage.\* For, in the absence of such agreement, the Arya law would vest the authority over the wife entirely in the husband. Later on, however, a custom seems to have grown up of sonless fathers appointing as Putrika daughters who had been married without any such express stipulation, where such a stipulation might be implied (*abhisandhimātrat*.) This paved the way for the daughter of any sonless man being appointed Putrika at any time. That this could be done is indicated by the text of Yajnavalkya, who says the bride to be chosen should be *bhratrimati* or "having a brother." The *Mitāksharā* points out that this is necessary because she might otherwise be made a Putrikā.† The next step was for any daughter of a sonless man to be his heir, as she certainly would not have been under the early law, as stated by Gautama,‡ for instance.

The foreign origin of the Putrikā, who is generally placed first in the various enumerations of sons in the Smritis, suggests that the other forms of sons might also have been similarly obtained. In the case of the Kshettraja son, who generally takes the next place in the list of secondary sons, this seems more than probable. Mr. Chattopadhyaya refers to the only text of the Rig Veda which seems to support the theory that the institution of Niyoga existed in the early Vedic times. Reading the text in the original, one feels considerable doubts as to whether this is a necessary implication of the text. On the contrary, we find that there is no ritual appropriate to Niyoga in the Grihya sutras, as we should no doubt expect if it was a recognised institution from the earliest times. I am disposed to think that the evidence is against the existence of Niyoga in the earliest days of Indo-Aryan society. On the contrary, in the Dharmasutras we already find the recognition of the Kshettraja son and an elaborate treatment of the question of paternity of the son begotten on another's wife. A close study of these is instructive on the question of the history of the Kshettraja son. As the institution survives in later Smritis, e.g., Manu, when a widow has no son, her husband's younger brother, and, failing that, any *sapinda*, may raise issue on her, such issue to belong to the deceased. This is a religious duty which is only permissible with the consent of the head of the family, and must be gone through without any show of animal passion on either side. The Niyoga, of which we find evidence in the earlier Dharmasastras such as Gautama, is quite a different institution.

Gautama says that when the husband is dead the widow may, with the permission of *gurus* (such as the father-in-law) have intercourse with the *devara* or, failing him, with a *Sapinda* (S.B.E., Vol. II, p. 270-71). There is no question here of raising offspring to the deceased. It is a pure and simple licence granted to the widow. This is made clearer by what follows, for Gautama says that in this case the child belongs to the begetter (*op. cit.*, p. 271). This is the inflexible rule in cases of Niyoga after widowhood. On the contrary, there might be Niyoga by the husband himself during his lifetime. In such cases, according to Gautama, the

\* See, for instance, Vasistha, *loc. cit.*, where he cites the following text, obviously as one used at the marriage of a Putrika:—

Abhrātrikam pradāsyami tubhyaṃ kanyāmalamkritām

Asyām yo jāyate putrah sa me putro bhavediti.

† Yajnavalkya I. 53, and Mitāksharā thereunder.

‡ Gautama XVIII excludes the daughter and her children altogether from inheritance



child belongs either to the begetter or to both him and the husband of the woman. Evidently the licence is extended to the wife even when the husband is alive, but is missing; but with one limitation—if the husband is known to have become an ascetic, the wife must have no further intercourse with men.\*

In Vasistha, we find that the widow might similarly have connection with the kinsmen of her husband. The children would belong to the begetter unless the widow was properly appointed. The details of a proper appointment given by Vasistha agree in substance with those given by Manu. But there is this difference that, according to Vasistha, the child of the appointed widow belongs, not to her husband but both to the begetter and the husband. Further, Vasistha is a little more precise in that he gives the order of persons who are entitled to have the connection. The order is samana=udaka=pinda=janma=rshi=gotra (S.B.E., Vol., XIV, p. 92-3.)

Baudhâyana agrees with Vasistha in laying down that the paternity of the child begotten by appointment belongs to both the begetter and the husband. (S.B.E., Vol. XIV, p. 227). Another remarkable fact indicated by Baudhâyana is that it was not the wives or widows alone but maidens also, who might be appointed. In other words, a man might have connection with a maiden for getting male issue for himself in the girl's womb, without necessarily marrying the girl.

In opposition to all these there is Apastamba, who, while cognisant of the institution of Niyoga, stubbornly opposes it.† According to him, it is sinful to raise up issue on another's wife or widow. He is further of opinion that if a child is so begotten it belongs absolutely to the begetter. He also quotes an ancient story from the Vedas, in which a Brahmana says: "Henceforth I will not let anyone have intercourse with my wife. For they say that in the world of Yama the son belongs to the begetter."‡

These various texts show the law of Niyoga is in the process of formation in the Dharmasutras, while Manu, Yajñavalkya and others give the law in its most developed form. Manu, of course, absolutely forbids Niyoga further on, but that is obviously a later addition, at a time when the custom had gone out of vogue in decent society.

(To be continued.)

## REVIEWS.

### Archæology: Vases.

Pottier.

*Corpus Vasorum Antiquorum: France, Musée du Louvre.* (Fascicules 1 & 2) by E. Pottier. Union Académique Internationale, Librairie ancienne Edouard Champion, Paris. 49 Plates and text in each volume. Fr. 55 each. 33

A representative publication on a uniform plan of all the ancient vases comprised in European collections is a truly great project. For a practical scheme for its realisation we have to thank the Union Académique Internationale and the enthusiasm of M. Pottier. To the latter we are still more indebted for the two beautiful volumes under review, which embody the first steps towards the realisation of this grand project. They admirably illustrate the famous Susan and Greek vases in the Louvre and amply vindicate the general plan adopted for the Corpus. The photographs and their collotype reproductions are excellent. They are accompanied by a concise but adequate text explaining the technique and giving

\* Nivrittih prasangât' loc. cit.

† Aupajaudhani, quoted by Baudhâyana, S.B.E., Vol. XIV, p. 229, limits sonship to Aurasa son alone.

‡ Apastamba, Dharmasutras II, 13, 1-7; S.B.E., Vol. II, p. 13 seq.



a short bibliography of the objects illustrated. For economy the plates are printed on both sides, but a slight tendency to smudge, noticeable in the first volume, has been eliminated in the second by interleaving with thin paper.

The fine reproductions of the remarkable series of painted vases from Susa will be especially welcome to the student of prehistory. Though in some cases—e.g., Plate France 55—I should have preferred figures on a larger scale so as to bring out fully the details of the design, even at the expense of a reduction in numbers, this new selection forms a very valuable and convenient supplement to the rather ponderous tomes of the *Mémoires de la Délégation en Perse*. The older proto-Elamite style of the chalcolithic period is represented by twelve plates in the first volume; the later vases (Naram Sin to Khammurabi) by eight plates in the second. Possibly prehistorians and classical archaeologists would each prefer to have their respective materials in separate volumes. But neither group will in fact lose from being brought perforce into contact with the documents handled by the other. I suspect here a kindly design of the author's to entrap the Orientalist into an admiration of Greek art and to startle the Classicist into a wider outlook with the primitive splendours of Elam,—and wish him well. In any case it must not be forgotten that the classical vases which occupy the balance of both volumes, quite apart from their æsthetic value, have a great interest to the anthropologist for the scenes of cult and myth which they depict. Future volumes might, however, omit stray vases illustrative of nothing that will not be amply represented in other parts of the Corpus. The seven commonplace Late Minoan sherds of Plate France 13 are superfluous in a series which has the collections of the Ashmolean and the British Museums to draw upon. But the excellence of these volumes is so great that such small points are not to be regarded as criticisms of what has been achieved, but merely as suggestions for the volumes that are to follow.

The two fascicules of the Louvre then, not only confer themselves a great boon on all students, but also inspire anxious hopes for the completion of the great work, here so happily initiated, on the lines proposed by the Union Académique Internationale. But just for that reason I must be permitted to express the hope that the Union will take early steps to become, in fact as well as in name, international; without the cooperation of nations such as Germany no world-wide scientific effort—least of all in the domain of archaeology, where German scholars and German collections enjoy such a deservedly high reputation—can expect to reach a truly successful conclusion.

V. G. C.

### Caucasus: Archæology

Fessenden.

*The Deluged Civilisation of the Caucasus Isthmus.* By R. A. Fessenden. 34  
Boston, Mass., 1923. 4to. pp. xii., 139. Price, 5 dollars. J. F. Dunn  
(F. & E. Stoneham, Ltd.), 308, High Holborn.

The author is described on the title page as formerly head chemist to Thomas A. Edison, but his researches extend to subjects of less practical bearing than those of his chief. Of these essays, that on *By-products of History* illustrates his economic theories and the tiresomeness of committees in dealing with men of genius; other sections, on *Crop Stabilisation* and the *Personal Use Tax*, are not for anthropologists. The remainder expound a novel theory of the origin of man and culture. Briefly, the lost "Atlantis" lay not in the far west, as was supposed in antiquity, but north of Caucasus and it was submerged by the flooding of a greatly extended Caspian; south lay "Eden," "Elysium" and the "Hyperboreans." If the "tree of life" was the citron, one of the "three great vitamine-bearing fruits," and the tree of knowledge was the narcotic thorn-apple, there is hope for us all when



Professor Fessenden's researches on them are complete. To discuss the arguments for these opinions would need space which is not available here; more compendious than any review is the "photolog" or microphotographic reproduction of the whole book, which is sold at five dollars.

J. L. M.

## Heredity.

Gates.

*Heredity and Eugenics.* By R. Ruggles Gates, Ph.D. London: Constable. Svo. pp. x. + 288.

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The importance of heredity in mankind has long been recognised, the extent of the problem has attracted less attention until recent years. As the author of this volume points out, probably in no species of animal or plant does the number of differences between individuals approach the number to be observed in man; but this is due to the complexity of the human organism and does not imply any greater intrinsic variability. Some characters are produced by an environmental stimulus, others are determined by inheritance, although in both cases interaction between the organism and the environment takes place in the full development of the character. Optimum conditions are essential so that those who lay the greatest stress on the perpetuation of good human stocks should at the same time realise the necessity of creating an environment in which the best physical, mental, and moral qualities of the individuals can find free expression.

The author shows that many of the features of human inheritance follow the Mendelian rule, but that, since there is often the complication of sex-linking, difficulties may arise in individual cases from the insufficiency of data as compared with those available from stud-books or for laboratory bred animals and plants. Some characteristics, such as stature, might at first seem simple, but in reality be a compound of an inheritance of general tendencies to growth, of dimensions of various segments of the body, and of total duration of growth; the first and last perhaps being dependent on the secretions of some of the ductless glands. The total size might, therefore, be the resultant of several independent factors. Studies of eye-colour reveal that this is not always a simple pair of Mendelian characters as was formerly supposed, but that sex-linkage and other complications come in. Several segregating factors appear to be concerned in the inheritance of skin colour and in the form and colour of the hair. The matter is even more complicated when mental traits are considered owing to the interaction of factors and the part played by formal education, tradition and imitation. Although mental deficiency is often regarded as behaving as a simple recessive character the details of inheritance may be far more complicated. The importance of accurate collection of data cannot be overemphasised, no mathematical reduction can compensate for initial deficiencies.

The data presented cover a wide field of recent work and the application of the conclusions of genetics to eugenics is most temperately stated. The author indicates that among primitive races natural selection and differential fertility act so as to preserve existing types rather than to further evolution; so that narrow indeed is the road to eugenic ideals, which can better be promoted by enlightened public opinion than by any form of legislation. None the less, he urges the negative measure of checks on the reproduction of the unfit, not so much to improve the race as to arrest deterioration. It is to be feared his fate will be that of other prophets, for the present financial wilderness is arid indeed and public opinion as yet scarcely even permits of segregation. This book should be in every education library as a sober statement of matters of vital importance.

F. S.



## Magic.

Thorndike.

*A History of Magic and Experimental Science during the First Thirteen Centuries of our Era.* By Lynn Thorndike, Ph.D. Two Volumes. London: Macmillan & Co., 1923. Pp. xi., 834. viii., 1036, 9 x 6. Price, 42s. net. 36

It is difficult to speak in measured terms of the service which Dr. Thorndike has rendered to students of late classical and mediæval culture by his careful and detailed study of the development of experimental science in the early centuries of our era. Lest, however, his title should mislead, it must be stated that he does not cover popular magic, or such subjects as witchcraft and the laws and penalties which were enacted against witches and those who indulged in the practice of magic. Yet, when so vast a mass of scattered, and often inaccessible, material has been brought together and digested for our benefit, it is perhaps a little ungracious to suggest that as a history of magic, Mr. Thorndike's book is, therefore, incomplete. Beyond a summary account, which is inserted to support his definition of the term, primitive magic is not treated independently, although it appears throughout as the background to which elements in the work of the early scientists are referred. In fact, Dr. Thorndike has really taken as his starting point the magico-religious and magico-scientific ideas of Egypt, Mesopotamia, and Ancient Greece. In the case of the last named, while agreeing with most authorities that much Greek culture, religion, and philosophy was based upon magical ideas, he is inclined to hold that there was still a great deal of magical belief, contemporary with the writers of the Classical Age, of which the evidence may have been expurgated by Alexandrine editors. The documents and other relics of Greek culture in Egypt which have become known to us in recent years, may well be regarded as supporting this view.

So far Dr. Thorndike's work is introductory. His detailed study of his subject really opens with the Roman Empire. Beginning with Pliny, he traces the growth of scientific thought by a detailed analysis of the work of each writer and indicates its gradual emancipation from the trammels of magic. His study of the twelfth and thirteenth centuries, which occupies the whole of the second volume, is by far the most minute. This is not surprising in view of the fact that it covers the work of John of Salisbury, Maimonides, Michael Scott, Albertus Magnus, and Roger Bacon. Whatever may be the special interest of the student, whether it be the general relation of magic and religion to science and its development, or some specific branch, scientific or pseudo-scientific, such as astronomy or astrology, chemistry or alchemy, and the like, he will find Dr. Thorndike's book an almost inexhaustible mine of information. The critical apparatus with which it is provided in the shape of bibliographies, references, particulars of manuscript sources, and the like, bears witness to the high standard of scholarship the author has had before him in a task which can only be described as stupendous. E. N. F.

## CORRESPONDENCE.

Linguistics.

To the Editor of MAN.

Thomas.

## The Genitive in Dinka.

DEAR SIR,—In "MAN," 1924, 16, § 32, Archdeacon Shaw puts forward a theory that Dinka makes use of an Accusative of Respect, on the ground that the name of the possessor precedes only (a) in the objective case, and (b) when the relation between possessor and possessed object is very close. 37

It may also be interpreted as a relic of a time when the Genitive in Dinka preceded and the writer's argument can only hold good if there is no evidence of this. He has perhaps not realised that what would in European languages be



classed as prepositions are in Dinka of two kinds: (a) those derived from verbs like *ke*, *na*, etc., which precede the noun; and (b) those derived from nouns, like *lar* (under part, i.e., under) which follow the noun.

Even were it not so, there are cases in many Sudanic languages of exceptions to the rule of the position of the Genitive and it is hardly possible to treat each case as if it stood alone. In Ibo as alternatives to *mili onu* (saliva), *mili ainya* (tears), we have the reverse position. As in some of the Togoland languages special treatment is accorded to compounds, it seems to be a case of the same sort, though I can offer no suggestion as to why it occurs only in the objective case.

Perhaps I may add that *ghuera* (in the footnote) should read *yuern*.

Yours faithfully,

N. W. THOMAS.

## Sex Ratios.

To the Editor of MAN.

Thomas.

### Sex Ratios.

DEAR SIR,—In his reply to my note Dr. Parkes ("MAN," 1924, 23) **38** modifies his previously unqualified dictum that the sex ratio of coloured races tends to be lower than that of white and now insists that only matings of the same order can be compared, i.e., monogynous with monogynous. It would be interesting to learn on what grounds Dr. Parkes believes that polygyny raises the proportion of males. Such evidence must, presumably, be derived from coloured races; and it is not quite clear why there was no reference to the data in his previous note and no citation of his authority in his second. It would also be interesting to learn how the statistician is to be sure of the morals of his subjects. Reference to my note will show that I did not traverse his contention that "the sex-ratio of coloured races tends to be lower; what I maintained was (a) that there is considerable variation within the colour group, and (b) that the data cited are mainly non-African. Dr. Parkes passes over the second point and admits variation within the group due to social conditions. His standard of evidence also is now higher, for in his first note he cites as authorities (a) authors whose remarks are not only quite general, but based on small series, like Man, who knew intimately a tribe of some 400 and, therefore, could not well have such figures as Dr. Parkes declares in his second note to be alone authoritative; (b) others, like Wappaus, who simply give ratios without saying on what data they are based; (c) others, like Felkin, who gives as the ratio of the first born among captives M. 79, F. 403 and is cited in a paper where it is laid down that variation within the group is small. It would hardly be worth while to deal with these points if they stood alone; but Dr. Parkes quotes me as assenting to the proposition that monogynous matings produce an excess of females. It is true that in my chapter on demography I speak of monogamous marriage and it would, perhaps, have been well to qualify the expression, and point out that it is not synonymous with monogynous mating. I hasten to remove the false impression. In the Awka area both betrothal and marriage regulate, not sexual relations, but the ownership of children and inheritance of property. Free love is the privilege of the Ibo female, not perhaps from infancy onwards, as I have heard it put sometimes, but at any rate from an early age—at any rate before she is in her teens. I do not know at what age a woman perforce becomes faithful to her husband for lack of lovers, but in an adjacent tribe I recall a case in which a daughter, mother, and grandmother were all at home to callers.

The difference between an unmarried girl, betrothed or not, and a married woman is very small from the point of view of sexual freedom. The unmarried girl is not restrained in any way; the wife of a man of rank is doubtless more or



less under restraint; but the ordinary man who interfered with his wife's love affairs would be regarded as a churl; she carries on her *liaisons* with her husband's consent, and, in the ordinary way, a prospective lover makes application to the husband with a gift of two pennyworth of palmwine. Certain stipulations are made, such as that the wife must not spoil her husband's dinner because she has another engagement; but, these accepted, no complications arise.

It is clearly impossible to speak of monogamous marriage as synonymous with monogynous mating where customs of this sort prevail.

I have no idea of the form which my table would take if it represented real relations instead of an irrelevant legal classification, nor yet can I suggest any reason why the number of male births increases with the number of wives. At any rate, it does not seem to be because the husband of one wife is in a different position from the husband of several.

Yours faithfully,

N. W. THOMAS.

Circumcision.

Murray

To the Editor of MAN.

#### Circumcision Festivals in Arabia and East Africa.

SIR,—I am extremely interested to read in Mr. Juxon Barton's "Notes on the Kipsikis or Lumbwa Tribe, Kenya Colony" (*J. Roy. Anthropol. Inst.*, Vol. LIII, p. 58) re the rite of circumcision, that "an obvious factor is the Eastern immigrant from Arabia . . . those (Galla) furthest from Semitic influence do not follow the custom."

39

In the earlier half of 1917, while serving as political officer in one of H.M. ships off the Asir coast of Arabia, near Lith, about 80 miles south of Jidda, I took on board as "*liaison* officer" with the tribes of the littoral, Muhammad Hujeir, petty sheikh of Dhuwwi Hasan, a section of Ashraf (the descendants of the Prophet). He informed me that the Dhuwwi Hasan, and the neighbouring kindred clan of Dhuwwi Barakat, held circumcision festivals, at one of which his subsection, the Ben Ma'idi, circumcised annually 30 to 40 youths of eighteen years of age. From his description, the circumcision involved considerably more than the mere cutting off of the foreskin, and was extremely painful; and meant to be so, as a test of courage. On inquiry, he added that his younger brother, Hasan, a lad of seventeen, was about to be circumcised at the festival of that year. Hasan, who did not look forward to the approaching ceremony with enthusiasm, confirmed this. Owing to the hostile nature of these clans, I found it impracticable to make further investigation ashore. The Dhuwwi Hasan reckon their blood relationship to the Prophet so highly, that in their blood-feuds with the Beni Harb, they exact four lives for one. This custom must lead to some friction, but I had confirmation of it, not only from Hujeir, but from a sheikh of Beni Harb, who was wanted by the Dhuwwi Hasan to make up a four. It is thus evident that something resembling Masai circumcision survives nowadays among the noblest (from the Islamic standpoint) tribes of Arabia, and that it is not impossible that the Prophet himself endured a similar initiation in the past.

I am very far from my books, but, speaking from memory, I believe Sir Richard Burton ascribes, in his "*Pilgrimage to Medina and Mecca*," a similar practice to the Beni Harb. Possibly his informant confused the Dhuwwi Hasan with the Beni Harb they dwell among. Hujeir was positive the Harb had no such festivals.

I am, Sir,

Yours faithfully,

G. W. MURRAY.

Desert Survey Office,  
23 Sharia Falaki, Cairo.









FIG. 1.—ADJUSTING THE CHUCK.



FIG. 2.—THE FLEXIBLE POLE.



FIG. 3.—SHAWIYA TURNER AT WORK.



FIG. 4.—THE STOKENCHURCH LATHE.

THE POLE-LATHE IN ALGERIA AND IN ENGLAND.

## ORIGINAL ARTICLES.

With Plate D.

Algeria, England: Technology.

Hilton-Simpson.

**The Pole-Lathe in Algeria and in England.** By M. W. Hilton-Simpson. 40

Last winter, while engaged in my ethnographical researches among the Shawiya Berbers of the Aures Mountains, Algeria, I found in use two very primitive pole-lathes. They were employed in the manufacture of the wooden bowls and dishes in which is served up steamed semolina (the staple food of Algeria) and of the large platters in which the Shawiya women knead their unleavened bread. A few weeks ago, in the course of a few hours spent at Stokenchurch, Bucks., I observed a similar apparatus used for the turning of chair legs.

The wood used for bowls, etc., in the Aures is walnut. A branch of a diameter slightly larger than the bowl required is cut to a suitable thickness with a tool known as a "gedūm." This primitive implement resembles a miniature pick-axe in form, save that it possesses edges instead of points, one edge being shaped as a small axe, the other as an adze. It can be seen in Plate D, Fig. 2, lying on the base beam of the lathe. The diameter of the bowl to be turned is then drawn on the block thus severed with the aid of a pair of wooden compasses. One of these is shown in Plate D, Fig. 2, lying on the floor. The fixed point of the compass is tipped with an iron spike, while the end to be dipped in the powdered charcoal and oil, used as ink, is of plain sharpened wood. The local name of this instrument is "gompas": a term used to indicate something rather "clever," in fact, a "gadget." Of its origin I am uncertain, but it seems possible that it is derived from the late Latin "compassus." The block is then roughly fashioned into the shape of a bowl and partially hollowed with the adze edge of the "gedūm," care being taken to leave bosses in the wood both on the inside and the outside of the bottom of the bowl. The "chuck," or rotating limb of the lathe, is then attached to it (Plate D, Fig. 1). This consists of a wooden bar, circular in section, from one end of which project three sharp iron spikes, the other end being flat. The "chuck" is placed vertically in the centre of the bowl, its spiked end resting on the boss of wood left in the centre, and measurements are made with a string to ensure that it is perfectly upright and in the exact centre of the bowl. This done, the spikes of the "chuck" are deeply embedded in the boss at the centre of the inside of the bowl by blows of a mallet applied to the flat end of the "chuck." The "chuck" and the bowl, thus firmly united, are then carried to the frame of the lathe.

This is situated about 4 feet from the wall of the hut or shed in which it is housed. It consists of a large and heavy base beam laid horizontally upon two logs placed upon the floor (Plate D, Figs. 2 and 3). In this beam a longitudinal slit has been hewn.

With their flattened lower ends passing through this slit, stand two vertical posts, some 3 feet in height, circular in section, which hold the bowl and the "chuck" in position for turning. They are known as "poppets" in Buckinghamshire. The "poppets" are adjustable laterally to meet the combined length of the "chuck" and the bowl, sliding to and fro in the slit in the base beam, in which they are locked in their required position by wooden wedges. The summit of each "poppet" is encircled by an iron collar in which is fixed a sharp iron spike. These two spikes are turned inwards, pointing directly at one another.

The combined "chuck" and bowl are placed horizontally between the summits of the two "poppets" and the latter are drawn together upon them so that one of the iron spikes is inserted into a small hole in the flat end of the "chuck," while the other is inserted into a similar hole in the boss left for the purpose on the external



bottom of the bowl. The "chuck" and bowl, then, can rotate freely on the axis formed by the two iron spikes.

On the side of the lathe farthest from the wall, and at a few feet distant from it, a flexible pole of juniper is planted vertically in the ground. To the top of this pole a cord of plaited halfa grass or of cow-hide is attached (Plate D, Fig. 2). This cord is passed around the "chuck" from three to six times, and its free end is looped to a wooden hook in the wall (Plate D, Fig. 3).

Between the lathe and the wall stands the workman, his bare foot placed upon the cord. Pressure of this foot on the cord causes the "chuck" and the bowl to rotate in his direction, at the same time drawing towards him the flexible pole. When that pressure is released the pole automatically springs to a vertical position, causing the "chuck" to spin back again by means of the cord twisted around it.

The chisel is only applied to the bowl as it rotates towards the workman under pressure of his foot, for the power exerted by the pole as it springs upright is insufficient to admit of the successful application of a "draw chisel" to the wood.

On either hand of the workman is a sloping beam extending from near the summit of the "poppet" to the wall behind him (Plate D, Fig. 3). Along their upper surfaces these two beams are perforated with holes for the reception of pegs, against which pegs bears a transverse bar. Upon this bar the workman rests his left forearm while guiding the chisel, the handle of the chisel being grasped in his right hand.

When the bowl has been turned to the required dimensions it is removed from the lathe and the two bosses left on the bottom of it, to receive the spikes on the "chuck" and on the collar of the "poppet," are cleared away with the adze. The bowl, dish or platter is then ready for use.

By means of this primitive apparatus some well-made articles are produced. At Haidus, in the Abdi Valley, I saw a platter of no less than 39 inches in diameter which had been turned on one of these lathes. This platter, which had been cracked owing to a flaw in the wood, would have been sold for sixty francs, an interesting example of Shawiya profit-making when we remember that, at that moment, whole walnut trees were being bought for eighty francs in the same district. The great majority of the wooden bowls and platters used in Algeria are made, I believe, in the coastal mountains of Kabylia, by the Berbers who inhabit those hills. I have heard of but few lathes in use among their Shawiya kinsmen of the Aures *massif*.

The Buckinghamshire pole-lathe, still extensively used in the manufacture of chair legs, is identical in principle with the apparatus described above, from which, however, it differs in one or two details. The flexible poles of fir or ash at Stokenchurch are placed horizontally above the lathes and attached to beams beneath the roofs of the workshops, instead of being planted vertically in the floors as in Algeria (Plate D, Fig. 4).

Some of the English lathes are used out-of-doors in the woods on the Chiltern

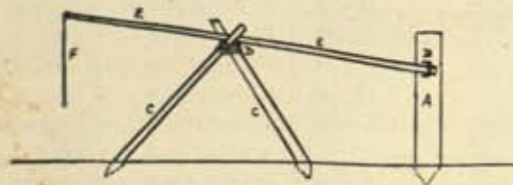


FIG. 1.

Hills, and in these, I am told, the pole is fixed as shown in the accompanying diagram (Fig. 1). I have, however, not yet seen these lathes in use.

For the turning of a chair leg a "chuck" is unnecessary, since the cord can be passed directly around the apex of a triangular wooden treadle, the base of which is hinged, by means of the leg to be turned. "Chucks," therefore, were absent from the lathes I saw at Stokenchurch.

After passing round the chair leg the cord in the English lathe is attached to the apex of a triangular wooden treadle, the base of which is hinged, by means of



staples and hooks, to pegs in the floor of the shop (Plate D, Fig. 4). Upon this treadle the operator presses his foot, applying the chisel, as do the Shawiya, only as he thus spins the chair leg towards him. He, like the turner of the Aures, stands between the lathe and the wall. The base beam of the English lathe is raised upon posts, the "poppets" being correspondingly shorter than those of Algeria, though the "poppets" are adjusted and fixed in the same way. The spikes, upon which the chair leg spins at Stokenchurch, are capable of finer adjustment than those of the Aures, for, whereas the spike in the right hand "poppet" (Plate D, Fig. 4) is fixed, that on the left can be screwed home by means of a handle clearly seen in my photograph. On the side nearest to the wall a transverse bar is clamped to the "poppets," upon which the English workman rests his arm.

I presume that the pole-lathe is a descendant of the bow-drill. I have, as yet, however, had no opportunity of studying its history. It certainly seems unlikely that such a piece of machinery could have been spontaneously invented and have developed on such exactly similar lines in so widely separated districts as Buckinghamshire and the Aures Hills. The lathes of the two countries must, surely, have a common origin. Wherever it originated, may not the Romans have introduced it into their British and their African colonies? In tentatively putting forward this suggestion I have not been guided merely by the fragment of etymological evidence ("gompas" and "compassus") quoted in this paper, but rather by a case which, it seems, may afford a parallel; namely, that of the flour mills driven by a horizontal water-wheel, common to Algeria and to these islands, which I described in *The Scottish Geographical Magazine* (Vol. XXXVIII, July, 1922, p. 152 *et seq.*).

M. W. HILTON-SIMPSON.

#### India, Brazil: Fishing.

Hornell.

#### Marine Fish-Traps in South India and Brazil. By James Hornell.

In MAN, 1923, 9, Major J. C. Clark described certain basketwork fish-traps used near Rio de Janeiro. Nothing was said as to the racial character of the fishermen, nor of the original home of the form of trap described. As I am acquainted



FIG. 1.

with a device practically identical, now in common use on certain parts of the coasts of Ceylon and South India, it will be useful if these be described in order that light may be shed, if possible, on the origin of the Brazilian examples. Sea-fishing with basketwork traps in India is limited to the shores of the Gulf of Mannar and of Palk Strait and Bay. The simplest form is that shown in Fig. 1. subtriangular or rather cordate in outline, with a single funnel-shaped opening in the centre of one side, which is recessed to receive it. This funnel at its inner end turns sharply downwards, but is unprovided with the spiked inner projections characteristic of the Rio de Janeiro type. A second variety in common use (Rameswaram) has a sub-stellate form, with three funnel apertures into the undivided interior (Fig. 2.) Others in use in Ceylon and at Kilakarai in South India are still more stellate, having four trapped funnel apertures. They are weighted with coral fragments tied to the sides and baited with dead fish. In India the basketwork is



usually woven from split babul withies in the same style as that of the trap illustrated by Major Clark. Apart from the funnels, each trap is made up from two sheets only of this babul basketwork; one, the bottom, is shaped to the eventual outline of the trap to be made, the other is more intricate in form as it has to be so shaped that it not only constitutes the upper surface of the trap, but also the sides, by means of

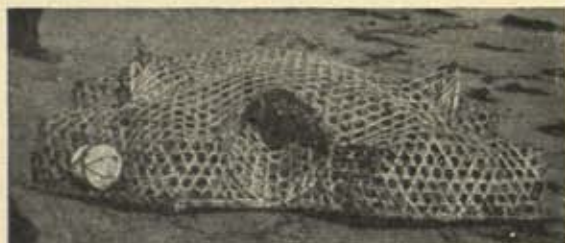


FIG. 2.

flaps and extensions; these have to be so designed and placed that they can be bent in the various directions necessary to form the multiple sides of the finished trap. The lower edge of the sides is laced to the edge of the bottom, and the trap is completed by inserting the entrance funnels. In one locality (Tuticorin) the basket-makers employ strips torn from the leaf stalks of the palmyra palm for the basketwork of oneway traps used in crab-fishing of nearly identical form to the oneway fish traps of Kilakarai and Rameswaram.



FIG. 3.

Has this design of trap, identical in its simplest variety (save for one detail) in examples from South America and South India, been evolved independently in these two localities? Considering that the Portuguese, who form the

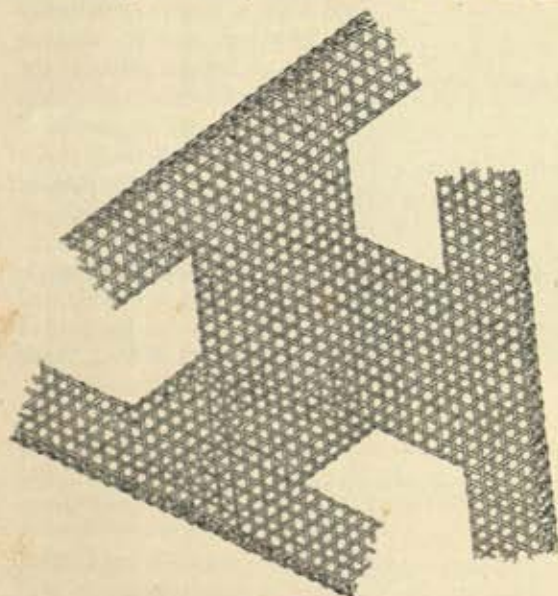


FIG. 4.

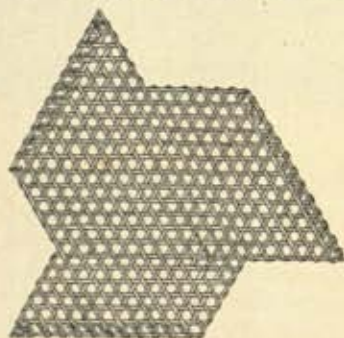


FIG. 5.

dominant race in coastal Brazil, are noted for their skill and energy in the prosecution



of marine fisheries wherever they go, and that for nearly a century and a half they were in effective occupation of those places in India and Ceylon where these basket-traps are found, and where a considerable section of the fishing community are Roman Catholics whose ancestors were converted by Portuguese missionaries, I believe it is almost certain that the Brazilian traps have been introduced into South America by Portuguese, who became acquainted with them when serving in India as priests, soldiers or traders. There are present-day instances in India of Portuguese priests transplanting improved methods of fishing from one part of the coast to another among their parishioners; it is probable that one of these men, having seen the utility of the Indian trap, subsequently introduced it among the half-caste Portuguese of Rio de Janeiro. It is significant that only the simplest form, that most easily manufactured, is in use in Brazil. The multiple aperture varieties seen in India require special skill to shape and weave, more perhaps than an amateur could muster. The variety of form found in India bespeaks also a higher antiquity than the single form current in Brazil.

JAMES HORNELL.

#### EXPLANATION OF ILLUSTRATIONS.

Fig. 1.—Simplest form of basket trap with one opening only. Kilakarai, S. India.

Fig. 2.—Four-way fish trap. Kilakarai, S. India.

Fig. 3.—Catamaran fisherman with three-way fish-trap. Rameswaram, S. India.

Fig. 4.—Woven basketwork shaped to form the top and sides of a three-way trap, before the flaps are bent down to form the sides.

Fig. 5.—Floor of three-way basketwork fish-trap. (Rameswaram.)

#### India : Sociology.

Sen-Gupta

**Early History of Sonship in India.** By Nares C. Sen-Gupta.

(Continued from MAN, 1924, 32.)

42

If this view as to the law of Niyoga is correct, then we may probably reconstruct the process of evolution.

We may start with the ritual literature as representing the earliest stratum of society. We have seen that there is no authority for the institution of Niyoga in that literature. It is a fair supposition, therefore, that the Aryas did not bring the institution with them to India. The next step may have been that indicated in the text of Gautama, which provides simply that the widow may have connection with the husband's younger brother. This exactly coincides with the sense of the Vedic text cited by Mr. Chattopadhyaya, if we accept the translation as accurate. In this form it is nothing more or less than the Semitic Levirate, with a limitation as to time. It will be noticed, however that the children born belong to the begetter, and there is no question of raising up issue to the dead. Vasistha's text further indicates that there is no limitation in favour of the childless widow alone, but the rule extends even to those who have had children. Furthermore, Vasistha and others speak of an order of preference of persons *entitled* to have connection with the widow. This reminds one of the story of Ruth, where permission of the person entitled to exercise the right of preference was necessary before Ruth could have her desire.

Altogether, therefore, this Niyoga of the widow was as nearly akin to the Levirate of the Old Testament and of the Semitic races generally as any institution could have been. And it is not a violent imagination to suppose that the Aryans borrowed the institution, which was repugnant to their ritual law, from their Semite neighbours. It was an exotic, and, once introduced, it gradually came under the influence of native ideas and institutions of the Aryas themselves. In the process of adjustment that followed we find developed a wide diversity of opinions about the mode of appointment, the women who may be appointed, who may appoint, and, above all, about the paternity of the offspring of that connection. Shape was given to the institution by the needs and predilections of each community.



Among these we find a dominant principle, the hankering after sons. Sons are looked upon as exceedingly valuable possessions, and we find the society depicted in the Dharmasutras put to all sorts of devices for getting sons. Naturally, they tried to exploit all the possibilities of child-bearing women, and would not allow such women to rot in barren widowhood. This accounts for that almost wild license which characterises the provisions about this institution in the early Dharmasutras. On the contrary, there was the characteristic Arya repugnance to promiscuity, which goes back at least to the ideals of chastity in the Grihya ritual of marriage, and which is strongly expressed in Apastamba's denunciation of the entire institution. The synthesis arrived at is represented in the laws of Vishnu, Manu, Narada, and others according to whom widows are only permitted to have intercourse with a *devara* or a sapinda or other kinsman under very rigorous conditions, *solely for raising up issue to the deceased husband.*

This synthesis was probably made possible by the fact that the imperative need for plenty of male offspring had considerably decreased in society. Possibly, also, there was another circumstance which helped in this final limitation of the institut on before it went out of use. The institution in its earliest form was not *Leviratsehe* in the strict sense of the term, for the only real *Ehe* of Arya law was the *samskāra* of marriage in the Grihyas. The widow, therefore, did not become the *Grihapatni* or the mistress of the household and the partner in the religious life of the *devara*. But it was, at the same time, a recognised institution and probably a permanent connection by virtue of which she bore the children to her *devara*. To all intents and purposes, therefore, it was a marriage, though not a *justum matrimonium*. As the issue of such marriage belonged to the *devara*, they must also be called legitimate, though, as *Paunarbhavas*, they might be postponed to *aurasa* sons.

With all that, however, this was not a *samskāra*. Apparently, this was the only sort of connection possible with a widow in the remote past. The Grihya *samskāra*, as Manu rightly contends, was not applicable to widows. At a later date, however, we find that widows (with some restrictions at first, but apparently without restriction later on) were admitted to the *samskāra* of marriage. This naturally made the license to the widow to have connection with the *devara* and others unnecessary, for they might now have a regular *samskāra*. This made it easy to restrict the right of Niyoga in the way in which we find it in Manu. Once the religious ideal of chastity had asserted itself so far, it is no wonder that it attempted to assert itself further, and sought to do away with the institution of Niyoga, which had lost its original social necessity altogether. The attempt, exemplified in the later texts of Manu and the text of Kalika Purana, succeeded in societies where the sense of the necessity of the institution had disappeared. Where, on the contrary, the necessity was felt, the attempt did not succeed, and the institution still survives in various forms in customary law in some places.

Mr. Rose very correctly draws the distinction between the Niyoga as laid down in Manu and the Levirate in Semitic laws. But the shape that the institution had in Manu was not its earliest form. In its earliest form the institution was practically identical with the Levirate, with a difference, as we have seen, with regard to the paternity of the offspring. If we look at the later form of Niyoga in the light of this circumstance it would be obvious that it is nothing but a truncated Levirate. It recognises Levirate to the extent of the first male issue, which, under Semitic law, also belonged, as Mr. Rose points out, to the husband of the widow, but it stops at that, and refuses to recognise the further permanent connection. And I venture to think that the institution of Niyoga was really an adaptation of the Semitic Levirate.

This leads us to the *Paunarbhava* son, who is placed by Vasistha and Vishnu next after the *Aurasa*, *Kshettraja* and the *Putrika*, though Baudhâyana and Manu



place him very low down in the list of the sons who are not entitled to inherit. The fortunes of the *Paunarbhava* son are associated with the position of *Punarbhū* referred to above. Vasistha speaks of two kinds of *Punarbhū*s. The first kind including a woman who has renounced her first husband and had connection with another and becomes attached to (*āśrayate*) the kinsmen of the second man. The second class of *punarbhū*s include women who, after the death of their husband or during the lifetime of an impotent or lunatic husband, marries another man. It is noticeable that the term used for the second connection of the widow is *vindate*. It does not necessarily indicate a *samskāra* of marriage. And a *samskāra* could hardly have been meant.

Mr. Rose gives the definitions of *Punarbhū* in Manu and Narada. Yajñavalkya, whose position is chronologically between these two, distinguishes between a *Punarbhū* and a *Swairiṇi*. A *Punarbhū* is a woman who has gone through a marriage *samskāra* (*samskritā punah*); while *Swairiṇi* is the woman who renounces her husband and associates with another man of the same caste.\* This represents a very great change. The *Punarbhū* now becomes the fully wedded wife.

In the old order of things the sons borne by the widow who associated with her *devara* by permission of her masters (guru) might be a son of the husband or that of the *devara*. As the first husband's son he was a Kshettraja, as the *devara*'s son he was *paunarbhava*. But he was not in any case on the same plane with the *Aurasa* son because the *samskāra* of marriage had not taken place between the father and the mother. But when *samskāra* became possible, the son of the remarried widow would seem to be entitled to full rank as an *aurasa* son. That this was so seems to be implied by Narada's texts quoted by Mr. Rose. On the other hand we find a reaction against widow remarriage which already makes itself felt in the latest redaction of the text of Manu as it has come down to us. This revulsion of feeling against the remarriage of widows makes itself felt in the retrogression of the *Paunarbhava* son. The fluctuations in the position of the *Paunarbhava* who is placed next after the Kshettraja and Putrika by Vasistha, while he is placed among kinsmen who are not heirs, by Manu, are accounted for by this diversity of the attitude of people in different times and different parts of the country towards widow remarriage.

I do not propose to make an exhaustive survey of the evolution of sonship in ancient Indian history. The task would be beyond the scope of a single paper. And there are numerous dark chapters in that history which require a lot of clearing up.

I may mention, however, that the sons so far dealt with are all offspring of the family. They are born of women in the family and are members of the family. The only question to be settled in these cases is the question of paternity. Of the same class are the *Kanind*, *Sahodha* and *gudhaja* or *gudhotpanna*, who are all children born in the house, and affiliated to the head of the house. On the question of paternity, we have seen the conflict between the rival principles that sonship follows the seed and that it follows the bed fought out in the case of the *Niyoga* in favour of the bed, or the ownership of the wife. In point of fact the name of the Kshettraja is founded on the analogy to the produce of a field which belongs not to the man who sows the seed but to the owner of the soil. The analogy to the increase of cattle is also frequently used in Hindu legal literature. Once this principle is established, it would naturally be applied to all other cases of children born in the family. They cannot be regarded as slaves, because they were born of free women. The idea of *nullius filius* was unknown to Hindu law. Every child must be a son. And Hindu lawgivers cut the Gordian knot by accepting the

\* Yajñavalkya I., 63.



principle established in the case of the Kshettraja. Thus the son of the maiden belongs to her father, that of a woman married while pregnant, to her husband and so on. These are not cases of affiliation and certainly not cases, any of them, of legitimation. They are really statements of fact—a statement of the law as to whom the father-right belongs.

I wish to draw pointed attention to this fact. The determination of fatherhood has the only object of thus fixing the status of the boy. Maine never made a truer observation than when he said that there is no such thing as an individual *per se* in ancient law. An individual was a member of society only in so far as he belonged to a family. Now a family in ancient India would consist chiefly of two classes of persons, kinsmen and slaves. There are evidences that between these two classes there were people who might be called free domestics—filling a position analogous to that of clients in ancient Rome. A son borne by a member of the family could be neither a slave nor a free domestic. Therefore he must be somebody's son. But whose? The question was solved by ignoring the seed and going by the ownership of the field. This was the sole purpose of this affiliation or whatever else you call it. It did not imply the relation of affection between father and son, about which not the slightest evidence can be found anywhere with reference to these sons, while even the ritual law is full of terms of fondness for the child made up of one's own limbs. The religious purpose of these sons is hardly mentioned. The Grihya Sutras give the status for religious ceremonies only to the *Aurasa* son. And later works, even though they speak of these secondary sons offering pindas, never give them the religious efficacy of the *Aurasa* son or the *Putrika* or the *Kshettraja*. The category of sonship in their case is thus merely indicative of the father-right.

The other kinds of sons belong to a different order. They are children of known parentage, who by a fiction are adopted into another family. These sons do not date back to a very remote antiquity. Even in the *Dharmasutras*, where they are recognised, they are generally postponed to other children born in the family. But already at the time of *Vasistha*, the institution was well established. The root idea of this is that of ownership over sons. As *Vasistha* says, "Man born of the virile seed and blood owes his existence to father and mother. In the gift, mortgage and sale of him the mother and father prevail." This, according to *Vasistha*, is the foundation of the adoptive father's right. It follows, therefore, that in order that this relation can arise the natural father's rights must be terminated and transferred to the adoptive father. The different varieties of adopted sons only stand for the different ways in which this can be effected. *Dattaka*, *Krita*, *Krittrima*, *Swayamdatta* and *apavidhha* differ only in the mode of transfer of ownership, some of them more reputable than others, and therefore giving to the son a better status in the eye of law and public opinion.

The history of evolution of these various kinds of sons is thus a history of the theory of ownership in sons, a subject into which it is impossible to enter in this paper. I shall, therefore, content myself with saying that the evolution of these classes of sons, as also of the inferior classes of natural sons referred to above, are the results of the application of developed logical principles to established theories of paternity and father-right. They do not belong to the early history of sonship.

NARES C. SEN-GUPTA.

Britain: Archæology.

**The Trail: its Character and Date.** By S. Hazzledine Warren,  
F.G.S.

Warren.

43

It seems to me unfortunate that the distinctive term "Trail" is not more generally adopted for the superficial contorted drift, such as that recently described



from Foxhall Road, Ipswich.\* This term avoids confusion with the very different, and far older, contorted drift of Cromer, but, at the same time, it does not possess priority.

J. Trimmer, in a paper "On the Soils of Kent" (*Quart. Journ. Geol. Soc.*, Vol. VII, 1851, p. 32), says: "The majority of soils and subsoils in the British Isles are composed only in part of the *débris* of the rocks on which they rest, and in part of materials transported from various distances by forces of considerable intensity, differing from ordinary atmospheric action which were in operation at the close of the Glacial period. I have called these results the warp of the drift, or the erratic warp." Thus, "erratic warp" has the claim of priority, but it has the disadvantage that "warp" is the name given to modern alluvium.

Osmond Fisher followed (*Quart. Journ. Geol. Soc.*, Vol. XIX, 1863, p. 396) and, in a paper on the brick-pit of Lexden, he referred to this superficial contorted drift under the name of "heading." Three years later, the same author published a paper of remarkable acumen "On the Warp of Mr. Trimmer" (*Quart. Journ. Geol. Soc.*, Vol. XXII, 1866, p. 553). In this communication, which would scarcely be discreditable if written in 1924, he gives the distinctive name of "Trail" to this superficial contorted drift. He lays stress on his observations that it frequently lies in long narrow furrows, and points to evidences of pressure and disturbance during its formation. Some of these furrows he traced for a length of 50 yards, and others to a depth of 13 feet. More astonishing still, he proved (and this was in 1866) not only that this Trail overlies the London Clay and earlier formations, but also that it overlies the gravels and sands which yield *Elephas primigenius* and *E. antiquus*, together with the flint implements of Palæolithic man. He showed, on the other hand, that the Trail (while overlying the Palæolithic drifts) passes underneath the later prehistoric [Neolithic and Bronze Age] Holocene alluvia. Osmond Fisher concluded that the material of the Trail travelled in a plastic state under rigorous climatic conditions. He also referred to the Ilford brick-pits as one of the localities where the Trail could be studied; these are in the Middle, or 50-foot, Terrace of the Thames, now known to be Mousterian.

Rather less than twenty years later, Worthington Smith proved that this contorted (*Trans. and Proc. Essex F. Club*, Vol. III, 1883, p. 102) glacial, or semi-glacial, Trail was well developed over the Mousterian deposits of north-east London, and this information was repeated in his subsequent publications. Worthington Smith noted that the Trail does not overlie the Low Terrace gravels, and he fell into the natural error of supposing that these gravels were later than the Trail.

A further important point was added by T. J. Pocock (*Summary of Progress of the Geological Survey of 1902*, pp. 205-206), namely, that the Trail passed into these post-Mousterian low-level gravels of the Thames basin, and that the two are consequently of the same period.

Since the time of Worthington Smith, a host of field workers have accumulated evidence showing that the Trail is of general occurrence over the Mousterian, Acheulian, and Chellian river terrace gravels, but not over deposits of later date. (*Vide* a very clear summary by H. Dewey, *Proc. Preh. Soc. East Anglia*, Vol. II, 1915, p. 114.)

In my own experience, the Trail is largely independent of any noticeable inclination of the ground. For instance, it is powerfully developed over the plain of the Tendring Hundred of eastern Essex, in places where the slope of the ground is so slight that in conversational language it would be called "perfectly level."

\* J. Reid Moir, MAN, 1924, 14. An admirable illustration of the festooned flow-structure of the Trail accompanies this paper, but it does not show the channelled junction with the underlying deposit that is so frequently to be observed.



It occurs over plateau gravels, and over the Boulder Clays, where it is frequently mistaken for decalcified chalky Boulder Clay. In the latter case, various evidences, such as pockets of sand, clearly washed out by running water, or differences in the contained stones (other than chalk), point to the conclusion that there is a difference between the true Trail—the geological plough which disturbed the chalky boulder clay in common with other formations—and instances of still decalcification in place. The Trail leads the field geologist (to say nothing of the less experienced and less critical archæologist) into endless traps. A well-known geologist once said: "if Boulder Clay is where you want it to be, it is in place; if it is where you do not want it, it is not in place." If a slight verbal alteration be made in that, and we say: ". . . is where, from the broad study of regional evidences, you think it ought to be . . ." then perhaps there is something to be said for the soundness of that view.

The discovery of the Ponders End deposits that the writer was so fortunate as to make in 1910 (*Quart. Journ. Geol. Soc.*, Vol. LXVIII, 1912, p. 213; Vol. LXXI, 1916, p. 164; Vol. LXXIX, 1923, p. 603), added another chapter to the story, and proved that the low-level gravels were formed under sub-arctic conditions of climate.

To sum up, we have the arctic soil-drift Trail, with its characteristic contortions, festooning, and gyrations, sometimes more than 20 feet in thickness. This passes directly into the low-level gravels with their boreal fauna and flora. Both these deposits are independently proved to be post-Mousterian and pre-Neolithic, and one can, I think, have little hesitation in suggesting a correlation between this Trail *plus* Ponders End (= Low Terrace = Flood Plain), with the Magdalenian period of archæology when the reindeer extended far into the south of Europe.

On general lines, it would appear almost inevitable that this Trail of south-eastern England must be contemporary with true Boulder Clay (possibly, for instance, with the Hesse Clay) of more mountainous and northern areas, but this correlation has not yet been established.

S. HAZZLEDINE WARREN.

Papua: Religion.

Lyons.

**Paternity Beliefs and Customs in Western Papua.** By A. P. Lyons.

44

This is a short account of the procreation beliefs and postnatal customs of natives living within the district that is situated between the Morehead and Wassi-kussa Rivers in Western Papua. Future investigations will probably prove that these natives, more than any others in New Guinea, approximate most nearly to the aboriginal type.

Amongst them, descent is patrilineal. All betrothals are arranged by male relatives only, and are usually concluded on the basis of an exchange of females. If one of the contracting parties has not a daughter or an unmarried sister to give to the other party when a betrothal agreement is concluded, he will, in all likelihood, pledge the first daughter who may thereafter be born to him. A betrothed girl is immediately handed over to the care of her prospective husband. If an infant, she is placed under the guardianship of some woman relative of her affianced until she attains puberty, when the marriage takes place. Sexual congress not infrequently occurs before puberty, especially in the case of betrothed children, who will "play" the married state in imitation of their elders.

The established custom of not permitting marriage before puberty, indicates that the natives realise some connection between that physiological change in the life of a woman and potential motherhood.

These natives believe that an invisible "something," which they call Birumbir, is the animating principle in human beings. The breath of life is expressed by the same word. They clearly recognise that Birumbir never dies, but that, without it,



a body can. Further, they believe that Birumbir is the embryo from which the material body develops in the uterus. In other words, the embryo is a spirit child. How then does Birumbir reach the uterus, and what function, if any, does the act of coition fulfill?

Birumbir is placed in the uterus by way of the vulva, and in the form of junga (semen), by an eel-like creature called Tombabwir. Seemingly, there is only one Tombabwir, and it is not a totem of any clan or group. Its haunts are rivers, creeks and water-holes. If a married woman is fortunate enough to enter one of these places at a time when Tombabwir is there, and immerses her body in the water, she is likely to be impregnated. There is no way in which she is made aware of Tombabwir's presence, and she does not become cognizant of his favour until menstruation ceases. One of my informants related that she became pregnant while fishing in a swamp. Another stated that Tombabwir gave her her child while she was swimming across a river. Both these women, as well as others, said that it would be impossible for a maiden to conceive, as "Tombabwir could not place Birumbir in the uterus until a passage was opened, and that that could not occur until after puberty." They further explained that the physical act served to make the passage. Several old men told me the same thing.

When a woman becomes aware of her pregnancy, she anoints her breast with a chewed mass of Wangap plant, or with a mixture of chewed ginger (Gonjara) and ashes reduced from the bark of the cork tree (Jai). This ensures that no harm will befall her child before birth.

A gravid woman refrains from eating a certain lizard called Dengua. If she ate it, her child would be born an imbecile. She will not eat the meat off the bones of a wallaby: to do so would cause a miscarriage.

Immediately after the child is born, the mother places her hands over a fire, and then rubs the child's body. This will prevent a Ninia (evil sprite) from harming it. Afterwards, she anoints the child with the mixture of ginger and cork bark ashes, which ensures that it will grow up strong and healthy. A. P. LYONS.

## Africa, Central: Dwellings.

Hatchell.

### Pile-Dwellings in Lake Nyassa. By G. W. Hatchell.

The accompanying illustration shows the remains of pile-dwellings at Kipingo, on the eastern shore of Lake Nyassa, about 29 miles north of Manda (Weidhafen). The people living hereabouts are known as Wa-kissi. Their origin is uncertain, but it seems to be established that they migrated from the north-western shore of the Lake (Karonga area) during the first quarter of the last century. It is related that they originally came from southern Mozambique, but this is as yet unverified. They are now closely intermixed with the Wa-sokile of the northern end of the Lake, and have of late years intermarried with those people known as Wapangwa, who live in the Livingstone Range. They are fisher folk, and cultivate only in the most modest fashion.

In the early part of the last century internal trouble amongst the Zulu or Amaswazi resulted in a migration northward of portion of this clan, who are now known as the Angoni. These people eventually reached the hinterland to the eastward of Kipingo, and decided to settle in the district now known as Songea, in Tanganyika Territory (G.E.A.). They set about subduing the inhabitants of





this district, and in due course found it necessary to subdue the Wa-kissi. It was well known that the Angoni had a strong aversion to water, and it is related that when crossing the Shire River in Nyassaland they kept their heads below the gunwales of the canoes in order that they might not see the water. The Wa-kissi, aware of this, constructed pile-dwellings, and in them took refuge from the invaders. It will be observed that the remains shown in the illustration are only some 20 or 30 yards from the shore, but it should be borne in mind that of late years the level of the Lake has dropped considerably, and it is not unreasonable to suppose that the dwellings when constructed were at least 800 yards from the shore. It is known that the Wa-Nyassa, living further south along the Lake shore, were accustomed to build pile-dwellings, but there is nothing to show that the Wa-kissi were in the habit of doing so. Doubtless they observed the immunity of their neighbours from Angoni invaders and followed their example. Two of the older village headmen in Ukissi state that the Kipingo dwellings were constructed for the express purpose of forming a refuge from the Angoni. As a general rule, and with the exception of a few small bays, the Livingstone Range runs sheer into the Lake and Kipingo appears to be the only place on the Ukissi coast where conditions are suitable for the construction of pile-dwellings. There is a sandy bottom and shallow water at some considerable distance from the shore.

G. W. HATCHELL.

#### Africa, West: Linguistics.

Migeod.

**The Language of the Manga.** *By F. W. H. Migeod.*

46

The Manga formerly inhabited the region north-east of Lake Chad. Here they are still found, but they are now spread far to the west along the river Yobe (=river of Yo) as far as the Emirate of Gummel.

This people, according to Benton ("The Sultanate of Bornu," page 331), quoting "Documents scientifiques de la Mission Tilho," is bilingual. From my first meeting with Manga not far from Lake Chad on the west side, I went into the question of what their original language was, and all denied having any other language than Kanuri. The problem was a puzzling one, and I continued my inquiries with the same result until I reached Gaidam, about ten marches up the river Yobe. Here I obtained information of interest bearing on this point.

The persons interviewed were the Lowan, or head-chief, of the town of Mozogün, named Digezhi; the Bulama, or town headman, named Abakura, and Ali Sirdima (Ali, the saddle-maker), of the same place. They admitted there were a few words they used which were not Kanuri. They said that they understood the language of the Manga still residing north-east of Lake Chad, and they never had a language in any way like Bedde, the neighbouring people. The original Manga came west with the Sultan of Kanem and Bornu, when in the fifteenth century he moved from Kanem and founded his new capital, Birni, near the river Yobe. They said they had formerly some connection with the Koiyam, who apparently in origin had some close connection with the ruling family of Kanem, the extent of which was not clear to me. Now they do not mix at all with them, but they intermarry with the Kanembu.

As to the origin of the name, my informants said that to the Manga was formerly assigned the duty of bringing to the Sultan his food, and he called them the Madinga, i.e., brainy people, which they say became corrupted to Manga, so that Manga is really only a nickname.

After going through many classes of nouns with no result, I eventually got a list of about two dozen words which differ from Kanuri; but what their origin



is I cannot say, as they are not words usually met with in ordinary brief vocabularies. No doubt a further inquiry would reveal more words:—

English.	Manga.	Kanuri.
Mat - - - - -	Māl.	Buzi.
Waterpot - - - - -	Bule.	Nge.
Ostrich - - - - -	Deo.	Kirigegu.
Kanuri - - - - -	Beri.*	—
Vertical sticks round a compound -	Karoji.	Patiske.
Main road - - - - -	Tulolo.	Jebal.
Eastern compound of a house - -	Darimi.	Gidi fato.
Big water pot - - - - -	Güntoh.	Gubam.
Small calabash to take water from pot to drink - - - - -	Guntoro.	Gurām.
Calabash to drink from - - - - -	Ajarūm.	Kumo.
Small undercoat - - - - -	Tabara.	Gamaji.
Slippers - - - - -	Sigei.	S'no.
Numnah or horse cloth - - - - -	Musumbiri.	Andesko.
Spur - - - - -	Dei-ina.	Togowa.
Well - - - - -	Būlgaji.	Būrrūm.
Bucket for well - - - - -	Guga (Hausa).	Kirbi.
Mat "before bedroom" - - - - -	Chiga.	Nimbese.
Sour - - - - -	Dinūm.	Gorgi.
Saltpan - - - - -	Ngwor.	Mandaram.
Cone-shaped salt-making basket -	Chagade.	Būra.
Pot for salt - - - - -	Ngadāh.	Gajia.
Stony residuum after making salt (carbonate of lime) - - - - -	Būgdu.	Bu.
Salt from Kigu tree - - - - -	Kaigu.	Manda-Kigu.
Potash, i.e., Natron - - - - -	Kilbu.	Kilbu.
"Red" potash - - - - -	Kilbu kime.	Kilbu kime.
Loose potash - - - - -	Būgdu.	Būgdu.

(? mistake, see "residuum" above.)

All trees said to be the same as in Kanuri.

F. W. H. MIGEOD.

# Africa, West: Calendar.

Cardinall.

## The Division of the Year among the Talansi of the Gold Coast.

47

By A. W. Cardinall.

Among the Talansi, a hill tribe of mixed origin living in the Northern Territories of the Gold Coast, close to the 11th parallel North, the following divisions in the year are recognised. They do not actually correspond to months or moons, but are periods of time or seasons recognisable by all. They depend on the fall of the rain, which is far from being regular:—

Approximate Period.	Explanation.
1. Kodo - December to end January	The cold season—no particular meaning to the word, which is a proper name.

\* Beri. The Kanuri-speaking inhabitants of Bornu are called Beriberi by Hausa and other peoples, indicating a former and very ancient connection with the Berber.



	Approximate Period.	Explanation.
2. Gunfuku	February - - -	<p>Gun', gunga—kapok tree. fuku—blowing of the wind.</p> <p>The period when the kapok pods ripen. This is evidence of the Dagomba extraction of this people, since kapok is, undoubtedly, a southern production. Their own tradition says they came from the south as a result of interfamily wars.</p>
3. Gologu	March - - -	<p>This is the name of a festival which takes place shortly after full moon.</p> <p>In 1921 the ceremonial dancing and symbolic planting of corn, which I witnessed by good luck, took place on March 1st. In 1922 about March 13th.</p>
4. Sionbeo	End of March or early April -	<p>Time of early planting. Sion—making holes in which to drop the grains. beo—poor.</p> <p>At this time it is not certain if the dry season will not return for a period and so dry up the first shoots.</p>
5. Sionsongo	April and May - -	<p>The time of good planting. songo—good. This is the proper planting time.</p>
6. Sionyio	Late May and early June	<p>The time of late planting. yio—conveys an idea of doubt. Planting at this time may or may not have a result.</p>
7. Narechag	Late June and early July	<p>Early millet harvest. Nare—early millet. chag'—cut.</p>
8. Natiri	Late July, mid August	<p>Na'—early millet. biri—small.</p> <p>The time for eating the small ears of early millet, which are not put in the granary owing to their smallness.</p>
9. Komwanrega	August–September -	<p>Kom—water. wanreg'—month or moon. The period of heavy rain.</p>



	Approximate Period.	Explanation.
10. Dawanrega	September—late September, early October.	Da—market. After the harvesting of the dark red or early guinea-corn, the Bari people of the Talansi tribe hold a great festival, during which they sacrifice to the spirit of their market-place. Bari is the largest market in their country. At this time, too, it is usual everywhere to sacrifice to the earth gods and departed ancestors.
11. Tenlebgre	Mid October	- Beginning of the dry season. Ten',-tenga—earth. lebgre—has changed.
12. Chibunfu	November	- Harvesting season. Chi—guinea corn. bunfu—knife with which the ears are cut off the standing stalks.

The orthography is that of an educated native of these parts.

A. W. CARDINALL.

## REVIEWS.

### Psycho-Analysis.

Jones.

*Essays in Applied Psycho-Analysis.* By Ernest Jones, M.D., President of the International Psycho-analytical Association and of the British Psycho-analytical Society. The International Psycho-analytical Press, London and Vienna, 1923. Pp. 454. Price 18s.

48

In spite of a very considerable number of books upon the therapeutic and psychological aspects of psycho-analysis, English readers have had hitherto but little opportunity of becoming acquainted with the applications of psycho-analysis to the problems of other sciences. All the more welcome therefore is the present collection of essays by a writer who is generally recognised as the foremost English-speaking exponent of the psycho-analytic school and whose work in applied psycho-analysis has hitherto been scattered through a number of periodicals, most of it in German.

The essays here brought together cover a very wide range of topics, including politics, artistic and literary creation, national and individual characterology, superstition, history, religion and folklore. Nearly all these fields are of some interest to the anthropologist, and for those who wish to obtain an insight into the various ways in which psycho-analysis can be made to throw light upon the most diverse problems of human life and human nature the whole book should be a source of great interest and illumination.

Some of the essays, however, make a quite special appeal to the anthropologist. Among these are two long and detailed papers, one devoted to "The Symbolic Significance of Salt in Folklore and Superstition," the other to "The Madonna's Conception through the Ear." In the first of these the author starts with the common superstition with regard to the unluckiness of spilling salt, and brings together a great wealth of ethnological material to show that in this and in many



kindred beliefs and customs, salt is unconsciously identified with semen and urine. The ultimate significance of the particular superstition concerning the spilling of salt is, therefore, derived from the unconscious identification of this act with *ejaculatio præcox* and (infantile) incontinence of urine. Incidentally, in the course of his review, the author throws much light upon the psychological factors involved in the blood covenant, baptism, the connection between marriage and the eucharist, and the etymological connections of the word "salt." In the second of the above-mentioned papers the idea of conception through wind or breath is traced ultimately to an infantile sexual theory of gaseous fertilisation. Here, too, will be found a great array of relevant ethnological material.

Among other papers of particular interest to anthropologists may be mentioned: two devoted to the psychology of war, a brief but brilliant "Psycho-analytic Study of the Holy Ghost," a study of the political psychology of the Irish (in which is shown the existence of a tendency to identify Ireland with the "Islands of the Blessed" and ultimately with the concept "Mother"), and another short but highly suggestive paper dealing with some of the psychological consequences and implications of the mixed character of the English language. The collection also contains the author's well-known interpretation of *Hamlet* in terms of the *Edipus Complex*—considerably revised and extended since its first appearance in the *American Journal of Psychology* fourteen years ago.

The book makes, of course, no attempt to explain the fundamental principles of psycho-analysis, and judgments concerning the ultimate value of the interpretations of anthropological data here advanced will naturally vary in accordance with the reader's general estimation of the methods and results of psycho-analysis. But there can be no question concerning the great interest and importance of the book as a contribution to anthropology from the particular point of view from which it is written.

J. C. FLÜGEL.

### CORRESPONDENCE.

Britain: Archæology.

Garrod.

To the Editor of MAN.

#### Maglemose Harpoons.

DEAR SIR,—I have received from Abbé Breuil, Professor at the Institute of Human Paleontology, Paris, a note on the harpoons recently found in Yorkshire, which he asks me to communicate to you. I translate the relevant passages of his letter:—

49

- "I have seen, in 'MAN,' the discussion on the Maglemosian harpoons.  
 "But they do not seem to know that a similar one has been found at  
 "Béthune (Pas-de-Calais); see 'Musée Préhistorique de Mortillet,' Pl. XLVI,  
 "No. 477. I have, moreover, drawn attention to the existence of Magle-  
 "mosian decoration on deer-antlers from the Somme and the Seine,  
 "published by d'Acy.  
 "Another harpoon comes from Tuberguy (Pas-de-Calais), and two  
 "others, of which I have not seen the reproductions, come from Ninove  
 "and La Haine in Belgium. These last were accompanied by flint picks.  
 "It is probable that the upper levels of Chaleux, Martinrive and  
 "Montaigle have a more or less Maglemosian complexion; a bone with  
 "punctuated design, and microliths that are not truly Tardenoisian, as at  
 "Hull."

Yours faithfully,

D. A. E. GARROD.

133 Banbury Road,  
Oxford.









FIG. 1.

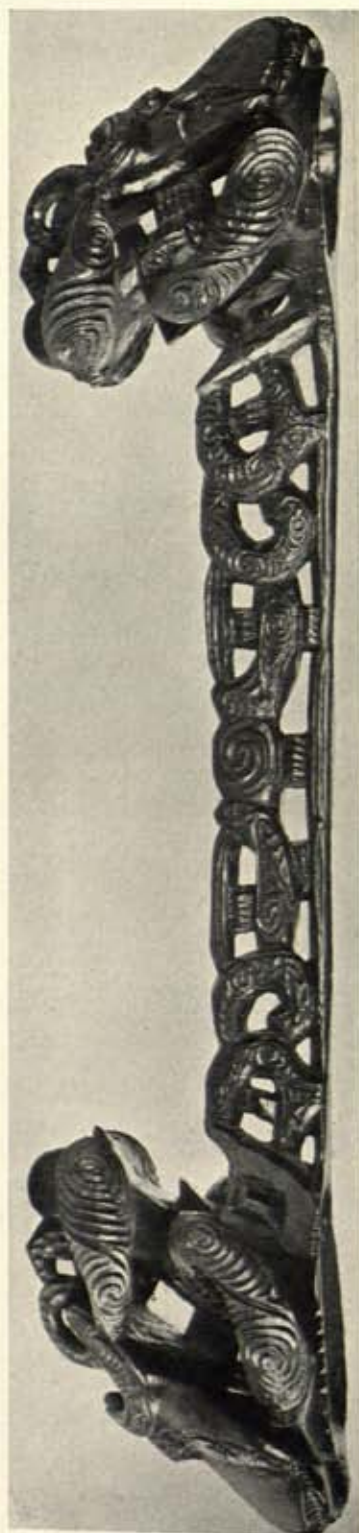


FIG. 2.

PERCHES FOR TAME PARROTS, PAE-KUKU.



## ORIGINAL ARTICLES.

With Plate E.

New Zealand: Technology.

Beasley.

**Perches for Tame Parrots, Pae-Kuku.** By H. G. Beasley, with Plate E.

50

In attempting to describe the objects illustrated in Plate E and Figs. 1 and 2 as briefly as possible, I must admit at the outset that all the information offered has been contributed from various authorities in New Zealand, and the several doubts

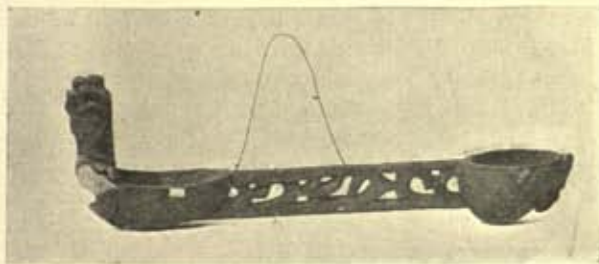


FIG. 1.—PERCH FROM THE HOCKEN COLLECTION, OTAGO MUSEUM.

that arise as to the method of suspension, and how the birds reached the food when hung up, and why none of these perches show any beak marks, such as one would expect to find where a Kaka or Tui bird had been fastened—these are, I fear, points that can hardly be answered satisfactorily; nevertheless we have here examples of an article of utility all obviously

old and emanating from well-known collections, and in the case of the Mair specimen, accompanied by native tradition. It seems, therefore, desirable to place on record the information available, not only to preserve what little there is known about them, but in the hopes that some readers may have other details that they will publish. It is curious that of the vast amount of Maori work preserved in museums all over the world, as far as has been ascertained the three parrot perches illustrated here are the sole examples; nor does examination of the various works on New Zealand yield any information. It is true that perches are noted by several writers, but all such consist of a small roofed structure mounted on a pole, and are quite unlike the three objects under review. Plate E, Fig. 1, was kindly contributed by Mr. Cheeseman, of the Auckland Museum; that it was formerly in the Mair Collection should be proof of its authenticity. Both the Tui (parson bird) and the Kaka (parrot) were kept as pets, and the perches were used for hanging up about the houses. It will be noticed that all have spoon-like depressions at either end for food and water. Thanks to Messrs. H. D. Skinner and Graham, of the Otago Museum, I am able to reproduce a certain amount of information regarding this example, which belonged to Tutuhoto, an Arawa Tohunga, or priest, who was connected with the Ngatitawhaki, a branch of the Tuhoe tribe resident in the Urewera country, and a people famous for their skill in bird-hunting; so it is reasonable to suppose that Totuhoto received it from there, and that these



FIG. 2.—CARVED END OF PERCH.



perches were in use in this district; at any rate the more common v-shaped ones employed in the capture of the birds (by means of a running line) are said to still be used in this wild and mountainous country. Fig. 1 has been kindly contributed by Mr. H. D. Skinner, of the Otago University Museum, and formed part of the Hocken Collection under his charge. As will be seen, it lacks the finish of the others, but at the same time embodies all the essential details. The food bowls, however, are much larger than in the other examples, whilst holes for suspension are provided at either end. The enlarged head agrees with a similar feature in the preceding specimen.

Plate E, Fig. 2, affords another and more highly finished example, differing greatly in various details. It is an old piece, and shows much elaboration of the carved figures at the ends, an illustration of which is shown in Fig. 2. The undercutting of the arms and legs is most skilfully done, and affords an instance of the highest workmanship of the Maori. The eyes are inlaid with serrated discs of *haliotis* shell, whilst certain notched work round the edges of the food bowls is also indicative of its age. Unfortunately all record of its earlier history is lost, except that it was purchased in a London shop many years ago. In length it measures  $17\frac{1}{2}$  in. (43.8 cm.)

H. G. BEASLEY.

### Troad: Archæology.

Childe.

**The Stone Battle-axes from Troy.** By V. Gordon Childe.

51

Perforated battle-axes of stone are extremely rare in the *Ægean* area. On the other hand, in northern and north-eastern Europe they are widely distributed, and present a great variety of elegant forms. Hence the occurrence of numerous specimens of such weapons in the lower levels of Hissarlik raises interesting questions, especially as some Trojan examples correspond closely to Northern types.

The fragments, Schliemann Sammlung Nos. 7225 and 7226, one of which is shown in Fig. 1, reproduce exactly in their semicircular section and overhanging butt end the so-called Silesian type of eastern Germany and Moravia (Fig. 2). In Silesia this type belongs to the very end of the "Stone" Age, being associated in graves of the *Marschwitz* culture with simple ornaments of poor bronze wire, flint daggers recalling west European metal types, and bracers such as were introduced into central Europe with the Iberic bell-beaker. Similar axes continued in use there into the first period of the true Bronze Age, as they are found in early Aunjetitz graves.\* From its home in Silesia this type of axe can be traced southward into eastern Moravia, where it



FIG. 1.—TROJAN AXE (AFTER GÖTZE).  $\frac{1}{2}$ .

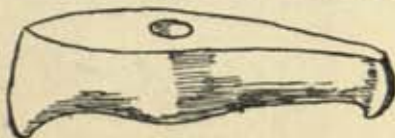


FIG. 2—"SILESIA" AXE (AFTER SEGER).  $\frac{1}{2}$ .

butt-end which links the Trojan fragments to Silesia.

Older and more widely distributed is the type with cylindrical butt-end and expanding blade, represented at Troy especially by the magnificent ceremonial axes of Treasure L (Fig. 3). This type of axe is represented already in the oldest

\* Seger in "Schlesiens Vorzeit," N.F., VII, pp. 65 f. and p. 82.

† Červinka, "Moravské Starožitnosti," pp. 158 f.



form of separate graves of Jutland (Untergräber),\* which are supposed to be contemporary with the earlier Scandinavian passage graves (Fig. 4). In Central Europe, however, judging from the closed finds, it appears intrusively at a relatively late date. Thus Vouga finds it first in the Upper Neolithic strata of L. Neuchâtel,† and Ischer assigns it to his third typological period.‡ Its intrusive character in Switzerland is well shown by its association with late corded-ware in the cremation tumuli of Schafflisdorf on the Egg. Similarly in Bohemia the type under discussion is associated with intrusive corded-ware interments at Bylan,§ while in Moravia the first dated specimen occurs, also with late corded-ware, in the uppermost stratum at Sary Zamek, near Znaim.|| The same type is represented by stray finds in stone, and also in copper, in Hungary, and recurs in a Copper Age kurgan at Jackowice, near Kiev, and in the Bronze Age treasure of Borodino in Bessarabia.¶ In Bulgaria we find a rather rough example from the chalcolithic settlement at Tell Metchkur.\*\* Finally, in Thessaly, a fragment comes from the VIII. stratum at Zerelia, which is apparently Late Helladic.††

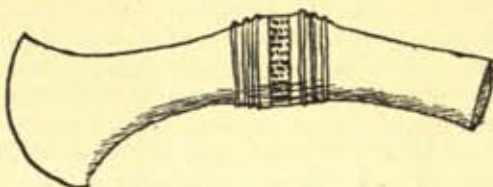
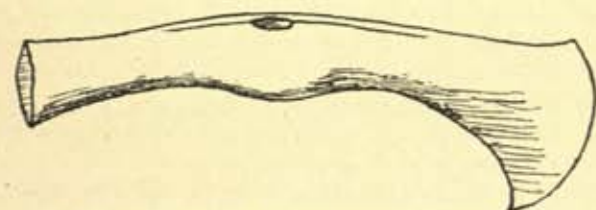
FIG. 3.—TROJAN AXE (AFTER GÖTZE).  $\frac{1}{2}$ .

FIG. 4.—AXE FROM JUTLAND (AFTER S. MORRIS.)

The explanation of the Trojan axes as a result of Nordic influence is probably correct. The great centre of manufacture for the stone axes lay certainly in the North and, while a prior evolution from metal prototypes in Hungary is possible (copper axe-adzes antedate stone battle-axes there) and the whole battle-axe culture may have arisen, ultimately under Sumerian influence, in south-east Russia, the known distribution can be explained from a focus in the direction of Scandinavia. The amber beads allegedly found with the axes of Treasure L, point in the same direction. It is, therefore, all the more unfortunate that the stratigraphical context of the axes is so uncertain. The technical criterion of date proposed by Götze gives results contradicted by Evans' study of the Cretan mace-heads; for fragments with even, cylindrical shaft-holes are, on account of the "more primitive" use of dry sand for boring, classed as older than those with biconical perforations.‡‡ On the other hand, the complete absence of these weapons from the tombs in Euboea, Chalandriani in Syros, and Boz Euyuk in Phrygia,§§ which otherwise show plentiful evidence of connection with early phases of Troy II, is against a high date. Indeed, these stone

\* Åberg, "Typologie der nordischen Streitäxten" (Mannus Bibliothek, No. 17), p. 55.

† *Archives Suisses d'Anthrop. générale*, 1922, p. 281.

‡ *Anzeiger für Schweiz. Altertumskunde*, 1919, "Die Chronologie des Neolithikums," p. 21.

§ Pič, "Starožitnosti," I, pl. III., 11 and 22.

|| "Die relative Chronologie der jüngeren Steinzeit in Mähren," by J. Palliardi (from *W.P.Z.I.*), p. 21 and fig. 30.

¶ Åberg, "Das nordische Kulturgebiet," pp. 108 ff. and figs. 194 and 209-213.

\*\* *B.C.H.*, 1906, fig. 34.

†† "Prehistoric Thessaly," p. 164.

‡‡ "Troja und Ilion," p. 322.

§§ 'Εφ' Ἀρχ., 1899, p. 122. Papavasileios, Περὶ τῶν ἐν Εὐβοίᾳ ἀρχαίων τάφων, pp. 11 ff, *Ath. Mitt.*, 1899, pp. 1 ff.



weapons might, perhaps, be connected with the Nordic invasion Peake postulates.\* In any case the occurrence of Northern types at latest somewhere about the end of Troy II, say circa 1800 B.C. on the chronology adopted by Evans, gives a lower limit for the emergence of the type in the North. But even a date so late as that would be incompatible with Åberg's typology, which takes as its starting point† a type found in Britain mainly in barrows of Bronze II. The classical view of the priority of metal types remains, then, the most probable. The origin of the whole series of battle-axes should, perhaps, be sought ultimately in Mesopotamia, where socketed battle-axes were in use from the beginning of the third millennium B.C.; immediately in the ochre-graves of the Kuban; for the latter contain, beside the "Assyrian" transverse axe, "axe-adzes‡" to which our first stone group might be referred and hammer-axes as in our second group.§ All this lends support to Peake's view as to the race responsible for the ochre-grave culture, especially when it is recalled that the Indo-European word *paraça*—*παραχς*—was borrowed from Sumerian.

V. GORDON CHILDE.

## Stonehenge.

Stone.

**Stonehenge—the Heel Stone.** By E. Herbert Stone, F.S.A.

52

The great boulder, commonly known as the "Heel Stone," is situated in the Avenue about 6 feet to the right (south-east) of the Axis, and at a distance of about 256 feet from the centre of the structure. This uncouth mass of sarsen is a most remarkable feature in the locality, and has been the subject of more theories than any other object connected with Stonehenge.

As a possible indicator of the direction of the midsummer sunrise at the date when Stonehenge was built, the Heel Stone contests the honour with the Axis. If we suppose that the Heel Stone was set up for this purpose, the direction of the Axis (lying along the centre of the Avenue) would apparently have no significance. If, on the other hand, we accept the Axis for direction of this sunrise the object to be served by the Heel Stone becomes a mystery. We cannot have it both ways.

*The Heel Stone as Indicator.*—Many well-known authorities have, however, assumed that the Heel Stone is on the Axis and that it was set up as an indicator of the midsummer sunrise. The following are quoted as examples:—

[The Heel Stone] "stands in the middle of the Avenue, and in a right line with the grand entrance."—(Dr. John Smith, "*Choir Gaur*," 1771, p. 51.)

"In the centre of the diameter of the mounded avenue, a large stone of a height of 16 feet, bulky and unhewn. . . . It was a gnomon for the purpose of observing the rising of the Sun on the auspicious morn of the summer solstice."—(Rev. Edward Duke, "*Druidical Temples*," 1846, p. 133.)

"The Friar's Heel, the Heel Stone, Sun-stone, or Index-stone. By means of this huge unwrought rock the temple is set to the rising sun at the summer solstice."—(Edgar Barclay, "*Stonehenge*," 1895, p. 11.)

"It is a notable fact that the sun rises immediately over the summit of the 'Heel Stone,' in a line with the Axis of Stonehenge on the summer solstice."—(Frank Stevens, "*Stonehenge*," 1916, p. 5.)

*Astronomical Observations.*—As deduced from the observations made by Sir Norman Lockyer in 1901, we find that, when viewed from a point on the Axis

\* J.R.A.I., 1916, pp. 154 ff. The limits here proposed for the fall of Troy II seem too high in the light of the latest evidence.

† "Typologie," pp. 5-10.

‡ Both types at Maikop.—*Otchet Imp. Arch. Komm.*, 1897, figs. 34 and 35.

§ With copper flat celt at Vosdvizhensk, *ib.*, 1899, p. 47, fig. 80.



just behind the central trilithon, the angles made with the peak of the Heel Stone are as follows:—

*To Peak of Heel Stone.*

From Stonehenge Axis	-	-	-	-	1° 12' 31"
From Sunrise, 1901	-	-	-	-	20' 19"

The point on the Stonehenge horizon at which midsummer sunrise occurs is, in course of time, gradually shifting eastwards. It is clear that it cannot reach the Heel Stone azimuth until this angle 20' 19" has been passed over. This would occupy about 1,360 years (from 1901) giving a date for arrival at the Heel Stone azimuth of about 3260 A.D.\* Hence it is clear that—

*Midsummer sunrise, as viewed from the trilithon observation point, has never yet taken place over the Heel Stone, and will not do so until more than 1,000 years have passed away.*

Mr. Arthur Hinks, in his interesting article on the subject in *The Nineteenth Century* (June 1903), remarks:—

"There is one very definite thing about Stonehenge that is certainly to be proved astronomically, that to an observer standing behind the great trilithon the sun never yet begun to rise immediately over the Heel Stone."—(p. 1003.)

*Present-day Sunrise.*—The present day midsummer sunrise, viewed from the great trilithon, takes place at a point on the horizon on a line passing about 1 ft. 8 in. to the left of the peak of the Heel Stone. This distance is relatively very small. Moreover the path of the rising sun is at a considerable slant towards the stone. The result is that to an ordinary observer the sun *does*, as a matter of fact, appear to rise just over the Heel Stone.

This has been attested over and over again by numerous observers, who have returned to their homes convinced by the evidence of their own eyesight that the Sun-stone theory of the Heel Stone is correct.

But the dilemma involved in this does not appear to be realised, viz.:—

(a) If the Heel Stone indicates the midsummer sunrise at the present date it is impossible that it can have indicated that occurrence when Stonehenge was built; or, alternatively—

(b) If the Heel Stone was purposely erected by the Stonehenge builders to indicate a midsummer sunrise—those pre-historic people must have intended it prophetically, as it were, to foretell where that event would take place some 5,000 years after the date of the building!

*The Heel Stone—a Mystery.*—From the foregoing remarks it will be clear that the Heel Stone is not located on the Axis line of Stonehenge, and that, whatever its purpose may have been, it certainly does not indicate the position of the midsummer sunrise when Stonehenge was built.

Perhaps later investigations may throw some light on the subject, but meantime the purpose of the Heel Stone remains a mystery.

On this matter Colt Hoare remarks:—

"Its original purport is totally unknown, though conjecture has not been idle in ascribing various uses to it."—(*Ancient Wilts*, I, p. 143.)

The Rev. W. C. Lukis, writing in 1882, gives his opinion as follows:—

[The Heel Stone] "I regard as belonging to a later date than Stonehenge, and having nothing to do with the original monument."—(*Proc. Soc. Antiq.*, Second Series, Vol. IX, p. 147.)

E. HERBERT STONE.

\* See article entitled "Stonehenge—Notes on the Midsummer Sunrise," MAN, 1922, 68.



Africa, West : Art.

Malcolm.

Short note on Native Drawings from the Bagam Area, Central  
Cameroon, West Africa. By L. W. G. Malcolm.

53

When stationed at Bagam in the Central Cameroon in 1917 the head-chief of the *Eyāp* sent me a series of drawings made by one of his attendants. In the accompanying figures some of them are reproduced.

Nos. 1-5

are said to represent chameleons and lizards; Nos. 6, 7 and 9 small animals with long bushy tails, and

No. 8 a leopard.

The representations of the human form (Nos. 10-20) were selected from a number of drawings, and it will be noted that the general treatment is just as crude as in the case of the animals.

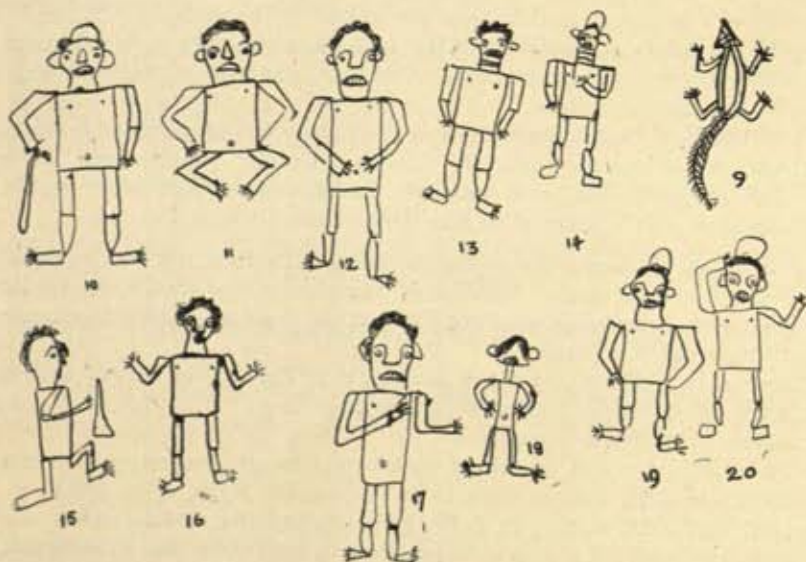


FIG. 2.

The plastic art of the tribes of the grassland area of the Central Cameroons has reached a high standard, and to this I propose to refer in a later paper.

L. W. G. MALCOLM.



## Religion.

Hocart.

**The King's Justice.** By A. M. Hocart, M.A.

54

In a note entitled "Mana again," published in this Journal (1922, 9), I quoted the words of Elara, the Tamil king of Ceylon, to the effect that "a king who observes righteousness surely obtains rain in due season." I remarked upon this that the moral turn given to the king's efficacy was characteristically Indian. I was not at the time aware of Odyssey XIX, 109, to which Sir James Fraser's "Golden Bough" drew my attention. I will quote it in full:

ὥς τέ τευ ἡ βασιλῆος ἀμύμονος, ὅς τε θεουδῆς  
ἀνδράσιν ἐν πολλοῖσι καὶ ἰφθίμοισιν ἀνάσσει  
εὐδικίας ἀνέχρησι, φέρρησι δὲ γαῖα μελαινα  
πυρρὸς καὶ κριθάς, βρίθησι δὲ δένδρεα καρπῶ,  
τίκτει δ' ἔμπεδα μῆλα, θάλασσα δὲ παρέχῃ  
ἰχθῦς ἐξ εὐηγείης, ἀρετῶσι δὲ λαοὶ ὑπ' αὐτοῦ.

"As of some blameless king, who, *god-fearing*, reigns over men many  
"and stalwart, and *upholds justice*; the black earth bears wheat and barley, and  
"the trees are heavy with fruit, and the flocks bring forth without fail, and the  
"sea provides fish *because of good government*, and the people prosper under  
"his rule."

The words "god-fearing" and "upholds justice" might easily be overlooked as no more than the artist's touches that complete the picture of perfect prosperity; but they mean much more than that: they are the causes of prosperity; these words are placed in an emphatic position at the end or beginning of a line, and to leave no doubt about it whatever, the words "because of good government" are added suddenly at the beginning of the last line. It is true that we also recognise good government as a condition of prosperity; but we do not believe at the present day that it causes the fish to abound in the sea, or the branches to bend under the load of fruit.

Clearly Homeric Greece shared with India the view that the king's justice causes the earth and the sea to be fruitful.\*

It is not exact, then, to say that this idea is Indian; it is much older than either Indian or Homeric civilisation; it goes back to a common source from which both have drawn. In course of time the technical terms have altered: the Indian adopted *dharma*, which is connected with the Latin *fero*; the Greeks preferred the word *dikē*, which is from the same root as Sanskrit *dis*, to point. But with a change of words the meanings and the use persisted unchanged; neither *dharma* nor *dike* are rendered exactly by our words "justice," "righteousness." *Dike* is custom, whatever is fit and proper, justice, law. A man who is *dikaos* is not merely just, he practises whatever custom or law enjoins, including the fear of God. In fact the fear of God and all these virtues go together. In Book IX, v. 175, of the "Odyssey," Homer contrasts those who are "insolent, savage, and do no right" with the "hospitable, god-fearing." Æschylus speaks of associating "a just man" with the most impious" (Theb. 598). The Sanskrit *dharma* and the Pali *dhamma* cover much the same ground as *dike*, namely, custom, justice, right, duty, virtue, religion.

In India justice or righteousness is so much an attribute of kings that a compound *dharmarāja* has been formed to express the idea of a good king, and the reign of a

\* I am prepared to believe that the popular tendency to blame the government for agricultural and trade depression is a survival of the "King's Efficacy." It can only be force of habit which causes people to cry out against Government if there is unemployment and distress after a great war. It cannot be explained as the result of observation or reasoning.



good king is summed up invariably with the words "he ruled righteously" (*dhammena rajjam karesi*).\*

In Buddhist countries *dhamma* has become identified with the Buddhist religion; it is a logical consequence of this change of meaning that in Ceylon it is now commonly believed that the island would be happier and the people more virtuous if a Buddhist king were on the throne once more. The idea has taken the same turn in the Bible, where a king who "does evil in the sight of the Lord"—in other words deserts the true religion—never prospers.

In the course of my researches in the Pacific I do not remember ever hearing this doctrine of the King's Justice definitely expressed. In Fiji the main condition of a prosperous rule is lineage: the chief must be nobly born on both sides, and should belong to the senior branch or the senior generation; if a junior or a family that is not noble usurps the power the people are apt to attribute their famines to that cause. In Vanua Levu, however, we find something approaching to the idea of *dharma* or *dike*; in the Wainunu district a chief feels his responsibility very much; he may make a mistake in the ceremonies, in which case things will go wrong; so after a term of office he resigns in favour of the second chief. A petty chief of the Windward Islands made a remark which comes even nearer to the King's Justice: "Under Ratu Finau's rule," he said, "there have been no famines; perhaps it is that his government is acceptable in heaven, inasmuch as he renounced his right of imposing statute labour and receiving first fruits." This comes very near to the Greek and Indian idea, for the foundation of the King's efficacy is the favour of the gods. This he can secure by the scrupulous observance of ceremonies and divine precepts; but justice is under the patronage of the gods; in fact, among the Greeks Law is a goddess, the daughter of Zeus, and "there is no help in riches for the man who insolently kicks the great altar of Law to destruction."† In India the law is a god, according to Manu XII, 50, the highest incarnation along with Brahmin and the All Soul. A king that does wrong, therefore, is guilty of blasphemy: "Wanton violence is the child of impiety," sings Æschylus.‡

The view of the Fijian petty chief is an isolated case, unless more lie buried in my unindexed notes; but we cannot expect to find much stress laid upon justice as an attribute of a South Sea island chief, as he is not a dispenser of justice; his part is merely "to abide," as the natives put it; he just receives offerings, is kind to his people, but neither judges nor administers as we would understand those terms.

The question arises: has Fiji preserved a more archaic conception of the king's efficacy than ancient Greece and ancient India? Does it take us back to a time when purely ritual accuracy was the sole condition of prosperity? to a time when justice had not yet come to be regarded as a form of worship? Most students will unhesitatingly answer "yes," because it squares with the prevailing doctrine that all purely mechanical acts precede those involving reasoning, that all customs are amoral, before they became tinged with morality. With these doctrines I have nothing to do; the case must be decided on its own evidence, and I can see no decisive evidence. It must be remembered that if there is such a

\* The conception of the king as the upholder of law and peace appears in Egypt. Amenhetep III is described as "diademed with law . . . . . establisher of laws, pacifier of the two lands." —(Budge, *History of Egypt*, III, 98.)

† Æsch., *Ag.*, 381 ff.

οὐ γὰρ ἔστιν ἑπαλξίς  
πλούτου πρὸς κόρον ἀνδρὶ  
λακτίσαντι μέγαν Δίκας  
βαμὸν εἰς ἀφάνειαν.

‡ Eumen. 534. δυσσεβίας μὲν ὕβρις τέκος.



thing as a primitive civilisation about anywhere in the world, it is certainly not that of the South Seas. Society there is simplified, which implies that once it was complicated; being isolated in small islands in the midst of the ocean it has preserved many archaic features which the movements of peoples have wiped out on the great continents; but, on the other hand, it has lost a great many which can only be kept up in large communities. It is quite possible that the king's judicial functions are absent in the Pacific not because they never arose, but because they have become atrophied. If so, we may find survivals which prove its former existence. Perhaps the petty chief's opinion which I have quoted is such a survival. We must wait for more evidence.

A. M. HOCART.

### British Guiana: Religion.

im Thurn.

**Smoking over the Fire to clear out Evil Spirits.** By Sir Everard im Thurn, K.C.M.G., K.B.E., C.B. **55**

Mr. Gimlette's note (MAN, 1924) on "smoking over the fire to drive out evil spirits" recalls to me a somewhat similar experience of my own. In 1885, shortly after getting back from the first ascent of Mount Roraima, I was living quite alone, except for my Guiana Indian boat-hands, in a house hidden away in the forest at the head of the Pomeroon River, practically the only means of communication with the outer world being by a forty miles' boat journey along tropical creeks to the coast. Malarial fever had taken strong hold on me, and had reduced my mental and bodily activities to a very low state. At one of my worst times, news of my state somehow reached the coast, and a kind friend, then manager of the nearest sugar-plantation, at once sent his negro butler to my rescue. The first intimation to me of help being at hand was an uneasy feeling of heat, which gradually increased till I became conscious that I had been stripped of all my clothes and was being held by my boat-hands, two at the shoulders and two at the feet, over a bath in which was a great heap of leaves on which the butler—I remember wondering how he had got there—was pouring boiling water from kettles and old paraffin-tins, with the result that I was being gradually scalded in the volume of rising steam. As far as I recollect after the first shock of pain had reached a certain acuteness, I ceased to mind what was going on; and some time after, finding myself back on my bed, with rugs heaped over me, I became aware of a feeling of returning life.

But the evil spirit (of malaria) must have been driven out of me only temporarily; and a day or two afterwards my butler-nurse had me carried down to the boat, in which I was taken down to the coast and shipped off to England. Thus I had little opportunity or inclination to cross-question my nurse; but he did tell me that the treatment he had given me was that which the old negresses, in slavery time, had used in cases such as mine. He also declared that special herbs had to be used, for the production of the steam, and he had great difficulty in finding these for my service. I was never able to ascertain what the plants were.

EVERARD IM THURN.

### Papua: Calendar.

Riley; Ray.

**Kiwai Seasons.** By Rev. E. B. Riley, with Notes by S. H. Ray, M.A. **56**

The natives of Kiwai in the Delta of the Fly River divide the year into two seasons, the north-west (*Suruma*) or rainy season, and the south-east (*Uro*), the dry and windy season. The former consists of five moons and the latter of eight moons. The following is the list of moons according to the Kiwai Island natives:—

*Dogai*, strong winds, much rain and thunder.

*Karogo*, calms, with winds and rain.



*Keremotoworo*, north-west winds until midday, then south-east winds for the rest of the day.

*Keke*, big winds and rains, first fruits are gathered.

*Utiamo*, so named from particular stars in the heavens.

*Segerai*, named from particular stars.

*Uro Naturaimé*, very strong winds.

*Baidamo*, sharks come up from the sea near the land and up the river. A star appears like a shark which seems to have two eyes.

*Abu*, sharks turn seawards. The word *abu* means to cross over.

*Durupi sagana*, very high tide during this month (Sept.). Fast (*i.e.*, copulating) turtle time.

*Dibiri dubu*, no wind, sea very calm. Turtles come ashore to lay eggs.

*Tagai*, Turtle time.

*Bunie Suruma*, Light winds, the beginning of the north-west.

The natives on the coast at Parama, Katatai, Tureture and Mawata have only twelve moons to the year. Appended is a list written by a Parama native. The names of several of the months are different in Tureture and Mawata, from those of Parama.

A Tureture native named Oroga is in possession of twelve short sticks, shaped like a penholder, tapering at one end. Several of these have crude marks cut into them which distinguish the month to which they belong. The stick named *Keke*, is more elaborate than the rest. These sticks are all laid out in a line, the sharp ends pointing towards the West. At every new moon one stick is turned over and made to point to the east. (These sticks, Oroga says, were made by a man named Matu, the son of Asiba, who was the first man found by Bidedu among the thick canes on the beach. See the story of Bidedu.)

When it was pointed out to Oroga that the turning over of his twelve sticks does not constitute a year, he informed me that originally there were thirteen sticks, and that one had been lost. He could not, however, tell me the name of the lost month. It is quite possible that the coastal year of twelve months is due to the European reckoning, and that the name of the missing month has been forgotten. The native informed me that the whole of the sticks are turned with the points facing west during the month named "*Keke*," when the south-east wind begins to blow. Mawata and Tureture begin to count the moons from the time of the beginning of the south-east. They are as follows: *Keke, Utiamo, Segerai, Kozigubo, Wapi, Opukorua, Abu, Tagai, Naramadubu, Niradubu, Karaguti, Goibari*.

At Mawata, *Segerai* is omitted and *Baidamo* comes before *Abu*.

Names of the Heavenly Bodies. These are in Kiwai language, unless specially noted. Tureture and Mawata are on the mainland west of the Fly River.

Sa'i, Sun.	Dadakupara.	Piuwakiritawa, a number of stars in a straight line like a lot of fish on a string.
Sagana, Moon.	Girirai.	
( <i>Ganumi</i> , in Tureture and Mawata.)	Idiai.	
Araria.	Igiri.	
Owe.	Imere.	
Sa'i gugi, or Duduere gugi, morning star; (ivio gugi in Tureture).	Kepo.	
	Karonga.	
	Maimai.	
	Momogo, milky way.	

In addition to this list must be added the names of each month, which also is the name of one of the heavenly bodies.

E. B. RILEY.



The following list of the seasons at Parama (Bampton Island, in the western end of the Fly Delta) was written for E. B. R. by Salepepelo, a Parama native :—  
Moon's Name. Stars' Names.

Epuru-dubu.	Janery.*	
Wapodubu.	Febery.	
Kiwuro.	Murch.	
Goibaru.	Aprley.	
Keke.	May.	Keke gugi Irisini mabu kiriho tagu.†
Utiamo.	Juney.	Utiamo 7 gugi aruwa gugi three.‡
Segerai.	July.	Segerai three stars.
Koizugubo.	Ougst.	
Wapai.	Sptember.	
Badam.	October.	Baidamo 7 gugi. Nou ina worohugumairi nei imarogori : hurama tagu.§
Abu.	November.	
Tagai.	December.	Tagai gugi red star, huhuwo gido two days two nights.   Keke gugi oruhona tagu kiriho gido. Nou ai wiroguri hurama ra uro ipihawato¶ Utiamo 7 stars Utiamo waporudo three gugi aime wirimoguri nei paina Utiamo Baba.** Three gugi arua nei pai awagoria Ganumi nei paina kepo. Uro tagu.†† S. H. RAY.

## REVIEWS.

### Sociology.

Westermarck.

*The History of Human Marriage.* By Edward Westermarck. Three volumes. Fifth Edition rewritten. London: Macmillan and Co. 1921. 57  
pp. viii + 571, xi + 595, viii + 496. Price £4 4s. net.

Professor Westermarck's *History of Human Marriage* is one of a small number of books which will hold a permanent place as a landmark in anthropological literature. When it first appeared, the wide field of evidence it surveyed, as well as the originality of the treatment of its subject, won for it a recognition which the issue of subsequent editions only confirmed. In the case of a book such as this, which has thus attained the dignity of a classic, it would be superfluous at this late date to discuss in detail the author's views, which are so well known, even though, as Professor Westermarck explains in his preface, this edition, the fifth, has been almost entirely rewritten. The book in its main lines and in its conclusions remains fundamentally unaltered, especially in holding to the view that marriage must be studied primarily in relation to biological conditions. To this, the reader will attach due importance when it is realised that the author, with that judicial attitude of mind which has

\* The names of the English months are left as Salepepelo wrote them.

† I.e., Keke Star Food eating time.

‡ I.e., Utiam seven stars, (and) other stars three.

§ I.e., Baidam (Shark) seven stars. When it sets they grumble. North-west time.

|| I.e., Tagai star (is) red star, for wind two days and two nights.

¶ I.e., Keke star, food time, for eating. It comes north-west and south-east in the middle place (comes between the north-west and south-east).

\*\* I.e., Utiam seven stars. After Utiam three stars then will come, their names are Utiam father.

†† I.e., Three other stars, they have no name of month. Their name is Kepo. South-east time.

This calendar from the Fly River may be compared with those from Torres Straits. See "Reports of Cambridge Anthropological Expedition," Vol. IV, pp. 218-228.



always characterised his writings, in preparing this edition, has found it necessary to re-examine the whole subject, and has carefully reviewed the objections raised by his critics.

It may be useful to indicate some of the more important changes in this edition, apart from the large number of new facts which have been incorporated. Perhaps the most noteworthy are the greater attention paid to folk-lore and the study of marriage rites. In the latter case, while the author recognises the enormous influence of magical beliefs on marriage rites—a position to which he was led by his studies in Morocco, and with good reason, as all readers of *Marriage Ceremonies in Morocco* will agree—he finds that the value of these rites for the study of early forms of marriage is even less than he thought it before. With all due deference to Professor Westermarck's authority, this position seems to verge on the extreme. For instance, Professor A. R. Brown's method of interpreting ritual among the Andamanese seems to the present writer as instructive in its reference to general principles as it is illuminating in its peculiar environment.

Professor Westermarck has given increased attention to the influence of economic conditions, especially in discussing monogamy and polygyny. This is a side of the question which even yet has not been sufficiently taken into account, and will repay intensive study. Divorce is another subject to which more detailed treatment has been given.

The "History of Human Marriage" is a book which tempts a reviewer to a detailed and lengthy commentary, but considerations of space preclude more than a general, and, it must be confessed, very inadequate, survey. There is, however, one matter upon which the author touches that cannot pass without mention. This is his preliminary discussion of the rival claims of the historical and the evolutionary schools. As might be expected, Professor Westermarck's exposition of the position of the latter is judicial and his examination of the arguments of the former, fair and eminently free from prejudice. He maintains that each method has its function, supplements the other and cannot be ignored, while, like Sir James Frazer, he sees that "origin" may be an ambiguous term, unless its meaning for the philosopher and the historian are clearly differentiated.

E. N. F.

#### Africa, Central: Ethnography.

Melland.

*In Witchbound Africa: An Account of the Primitive Kaonde Tribe and their Beliefs.* By Frank H. Melland, B.A. (Oxon.), F.R.A.S., F.R.G.S., etc. **58**  
London: Seeley, Service & Co., Ltd. 1923, pp. 308. Price £1 1s. net.

Mr. Melland, who has spent eleven years as a magistrate in the district described in this book, will be remembered as joint author, with Mr. Cholmeley, of "Through the Heart of Africa," a readable book, incidentally containing a good deal of interesting information, but not to be compared in value with the present, which is evidently the product of close and sympathetic study, as well as ripe experience. As the tribe dealt with, the Kaonde, inhabit the Kasempa district of Northern Rhodesia (south of the Belgian Congo border and north of the Upper Kafue) immediately adjoining the area of the Ila-speaking people discussed in Mr. Smith's and Captain Dale's admirable monograph, we may hope, in due time, for a series of works covering all the tribes of the little-known region between Lake Nyasa and Portuguese West Africa. For the region north of this we have Mr. Torday's very thorough and excellent notes (unfortunately delayed through the late war) on the peoples of the Kasai and Eastern Kwango; while in the Portuguese territory more research is greatly needed—no work of any importance seems to have appeared since that of Senhor Dias de Carvalho on the Lunda.

The Kaonde, though no doubt (like many other African tribes) of composite origin, appear, in the main, to consist of several offshoots from the Luba family.



They are subject to a Lunda Paramount Chief, with the dynastic title of Muso-kantanda, who in his turn is a feudatory of Mwachiamvu, the famous Mwata Yamvo (Muatiamvua) of the Portuguese and other early travellers.

The Kaonde, unlike the Lunda, trace descent through the mother (the confusion between the two systems has caused some inconsistencies in the succession of the chiefs, who, as just stated, are Lunda). Totemism exists, but does not appear to have any great influence on tribal custom, except as regards exogamy, which is strictly enforced. But there is no obligation to respect the totem (*mukoka*), and the existing tabus do not seem to have any connection with it. The curious custom of *bunungwe* (rendered by Mr. Melland "inter-totem jesting") is, if I mistake not, recorded here for the first time. It admits of a license in speech which, in any other connection, would be seriously resented, and cannot, therefore, be taken as a standard of what is in general considered permissible. This is a point worth considering, with reference to the obscenity of the songs used on certain ceremonial occasions—e.g., the women's rain-making ritual among the Baronga.

The chapters dealing with witchcraft are full of interest. The author has adduced various instructive parallels from Miss Murray's "Witch-Cult in Western Europe," and appears to accept her conclusions more unreservedly than some authorities are prepared to do. The weird superstition of the *tuyewera* (apparently identical with the *tuyobela* reported by Smith and Dale among the Baila: "Ila-Speaking Peoples," II, 97, 133-4) should be compared with the *umkovu* of the Zulus and *ndondosha* of the Yaos. Sorcerers (*ng'anga*) are credited with the power of making a snake with a man's head (*mulombe*), which can be sent out to kill a man's enemies. The process is described in detail.

The eminently sane and sympathetic way in which Kaonde customs (however repulsive to our thinking) are described, shows an uncommon degree of insight and allows one to infer unusual ability as an administrator on the author's part. His last chapter, in particular, is well worthy the attention of all who have any dealings with "backward" races.

A. WERNER.

## Balkans: Folklore.

Mazon.

*Contes Slaves de la Macédoine Sud-Occidentale.* Par André Mazon.  
Paris: Librairie Anconne Honoré Champion, 1923. Pp. 236. 10 × 6½.

59

Professor Mazon might have given a more exact title to his excellent book "Contes Slaves de la Macédoine Sud-Occidentale," because the tales are definitely Bulgarian and from Florina, which is west-central, not south-west Macedonia, where no Slavs live. Then I must protest against his assertion in the preface that Greece obstructs research among her subject minorities. I have just finished two years' travel among them, and, sure of obtaining facilities, I intend to return shortly to complete my Macedonian Bulgarian studies.

Before doing so I shall arm myself with Professor Mazon's book in order to learn "Macedonian." It is well designed for this. Forty-seven pages of linguistic analysis teach the pronunciation; forty-one texts—printed according to locality and in European, rather than unfamiliar Cyrillic, characters—are accompanied by explanatory footnotes and a close French translation.

Professor Mazon finds that "Macedonian" has the essential phonetic characteristics of Bulgarian, presumably as distinct from Serbian, and varies from district to district, as I found Greek and Turkish do. For dropping aspirates and gutturals I would compare also Macedonian Turkish, which pronounces *Mouharrem aga* as *Mouarrem ā*. Of the borrowings from Greek and Turkish which Professor Mazon notes, the most interesting is *ōri* in the senses of *why?* and *because*. Greek also



borrow: I once heard *σὸ νοβορὸ* (Bulg. *oborr*, prothetic *n*) *θά σε ἐμπορίζω* (Bulg. *zbor*) *ἐνὰ λὰφ* (Turk.) *καλό*, in the yard I will tell you a pretty story.

In his preface Professor Mazon apologises for the quality of his folklore commentary. Quite unnecessarily: had he only inserted reference numbers to facilitate finding the text under discussion, the commentary would have been wholly admirable. As might be expected from such discreetly selected storytellers, the tales are very representative, including *myths, religious legends, historical legends, and anecdotes*. The myths are few and ordinary, while religious legends and anecdotes bulk large. All the legends show the usual folklore salad of events and dates. Thus, "Czar David" appears as himself, Moses, and Herod; while Constantine usurps the legend of every historical Constantine and is the villain of the Hagar and Ishmael story, and therefore the father of the Turks! Critically, I add that my husband thought the decapitated Baptist in stories carries off his head, as in Tale VIII, because *eikons* frequently paint him wearing one head and displaying another on a charger. He noted also that, as Tale XIX indicates, it is at sight of a person of the opposite sex that head-carrying saints drop their heads. In connection with Tale IV, Professor Mazon will perhaps excuse my mentioning that to Macedonian Greeks his own nation is the third Antichrist, the former two being the Devil and the Turks. Reading Tale X, I remember that the roasted fowls of Santo Domingo de la Calzada not only revived but *bred*, their descendants being still shown. Finally, for the moralising Tale XIII, where a holy man perpetrates three seemingly unjust deeds, the Talmud version should be cited as the oldest.

The historical tales surprise me by being Serb or Greek, but seldom Bulgar. Yet Professor Mazon found the dialect, and I the heads, Bulgarian. Probably the church kept alive the memory of Constantine, while his ruinous castle at neighbouring Prilep rendered a similar service to Marko. Alexander the Great appears in connection with the Fountain of Life and his two sisters, his pursuit of whom, according to Macedonian Greeks, causes whirlwinds.

This useful book also gives a reproduction of the Florina section of the Austro-Hungarian staff map and a short bibliography, which is excellent on the Slav side, but might have included some Turkish books. Indices of notable Bulgarian words and of the subject-matter conclude a judicial and scientifically produced book.

MARGARET M. HARDIE (MRS. HASLUCK).

## CORRESPONDENCE.

Britain: Archæology.

Barnes; Reid Moir.

To the Editor of MAN.

**Mr. S. Hazzledine Warren's Views on Eoliths: a Reply to Mr. S. E. Glendenning.**

60

DEAR SIR,—IN MAN, 51, 1923, Mr. S. H. Warren stigmatises as an error the statement by one of us as to the existence of horizontal pressures in sand.

In our reply in MAN, 74, 1923, we cited an experiment which shows conclusively the existence of lateral distribution of pressure in sand under certain conditions.

In a communication to MAN, 22, 1924, Mr. S. E. Glendenning states that there is a serious fallacy in mechanics in our reply to Mr. Warren which he feels called upon to correct.

Mr. Glendenning states that "nobody disputes the fact that one effect of "downward pressure on sand is a lateral thrust in all directions, as, for example, "occurs when one attempts to build a pyramid of billiard balls." In making this



statement he evidently sets on one side as being valueless the opinion of Mr. Warren on this subject, and we agree that he is entirely justified in so doing.

Mr. Glendenning, however, contends that if "a vertical pressure on the top of a stratum of sand is not carried on vertically downwards, but is transmitted laterally," "it would be contrary to Newton's third law, which states that to every action there is an equal and opposite reaction." He argues that the lateral forces balance each other, and by no method of compounding forces can they be shown to neutralise the downward force at right angles to them.

Mr. Glendenning's argument is correct so far as it goes, but he fails to realise that his interpretation is restricted to a particular case, namely, to that in which each grain of sand is vertically over another. As a matter of fact, like the pyramid of billiard balls cited by him, the points of contact of a grain with its neighbours are not necessarily under the centre of gravity of the grain. Hence the weight of any particular grain is not supported at one point by a single vertical force, but by a system of forces acting at angles varying from the vertical nearly to the horizontal. The sum of the vertical components of this system of forces is equal to the weight of the grain in question. In addition to these vertical components, the interaction between grains will also possess horizontal components which, as Mr. Glendenning points out quite correctly, will neutralise each other.

As a practical example of this principle, we may refer to the experiments of Hummel and Finnan (*Min. Proc. Inst. C.E.*, Vol. CCXII, 1920-21, p. 369). These experiments were carried out on a layer of sand of uniform thickness and large extent, and show clearly the effect of lateral distribution of pressure.

It is obvious in the case of a layer of sand of uniform depth *resting upon a horizontal base and having a free surface of indefinite extent*, that the pressure at any point in the base depends upon the height of the sand above it. This is true, however, only in the conditions named, and it is easy to show that the introduction of boundaries and discontinuities of surface such as are found in nature seriously affects the distribution of pressure. The effect of boundaries is illustrated by the experiments carried out by Professor S. M. Dixon in 1916 at the Imperial College of Science and Technology with a strong wooden box 12 inches by 9 inches by 12 inches filled with sand. A hole 3 inches in diameter was made in the bottom of the box and a pressure of 11.9 tons to the square foot was applied to the surface, when the *sides* of the box showed signs of failure, but not a grain of sand came out of the hole at the bottom. With regard to Mr. Glendenning's confident but incorrect statement as to the pressure on the bottom of a cart filled with sand, let us suppose the cart to be filled to a level surface with sand well compacted, and that Mr. Glendenning and Mr. Hazzledine Warren place themselves on top of the sand "in the cart"—a position which, speaking metaphorically, they already occupy on this question. Then, while the pressure on the wheels will be that due to the total load, the pressure on the bottom of the cart will be only a portion of the combined weight of the sand and the occupants, the remainder being borne by the sides of the cart.

With regard to the pressure of 300 tons to the square inch which Mr. Glendenning is good enough to inform us is an error, we may say that this pressure was not obtained with a rubber ram as he supposes, but with an iron one. Further, the cylinder was not 8 inches in diameter, as Mr. Glendenning states, and the experiments did not relate to sand but to flint nodules between iron surfaces. The account of these experiments given in *Nature*, December 29th, 1911, is very condensed, and full particulars are given in *Proc. Prehis. Soc. E. Anglia*, Vol. I, Part 2, pp. 171-184.

A. S. BARNES,  
J. REID MOIR.



*To the Editor of MAN.***Objects from Tombs of the Old Kingdom at El Kab.**

DEAR SIR,—In Mr. J. P. T. Burchell's note on two objects found among the tombs of the Old Kingdom at El Kab (MAN, 1924, 28), one of his points is invalidated if, as there is evidence for the contention, the object held in the left hand of the sower in Fig. 2 is not a candle, but a whip. 61

The sketch shewn herewith (Fig. 1) is taken from the tomb chapel of Ti (5th Dyn.) at Saqqara (Steindorf, *Das Grab des Ti*, Pl. III, x, also Baedeker's *Egypt*, Saqqara), where four men are driving rams, treading seed, with uplifted whips. That the object in the hand of the sower is incontestibly a whip,\* in spite of the difference in the handle, is, I think, proved by the small circle which occurs in both drawings, his and mine, just beyond the end of the twist, where one may suppose the rope strands are separated and plaited to form the lash. I have seen such a whip somewhere; whether in actual use in Egypt, or in a Museum I cannot recall.



FIG. 1.

There is a representation of two slender red candles or tapers twisted round a white upright support in the tomb chapel of Userhat (No. 51) at Thebes.

Maadi, Cairo,

March 12th, 1924.

Yours faithfully,

ERNEST S. THOMAS.

**Religion.**

Hocart.

*To the Editor of MAN.***The Polite Plural.**

SIR,—Lord Raglan's note on the Polite Plural in the March number of this journal is a welcome addition to our information. It confirms me in my opinion that the key lies in the hands of the students of the late Roman Empire and especially of the Pagan Religions that invaded it. This is why. 62

The Polite Plural is everywhere late. It is unknown in Latin and Greek in the period covered by the dictionaries of Lewis and Short, Liddell and Scott; it is unknown in Vedic; in classical Sanskrit it is not common and only used as a mark of great respect.† It is the rule in Tamil and Sinhalese towards people of rank. There is reason to suppose Fiji has received some very late influences. We are not told that it does not appear in Arabic till late—that is, after full contact with Syria, Asia Minor, and the Byzantine Empire. My suggestion is that the polite plural is one of the many religious customs that came to us from the Near East through the declining Roman Empire. Will the specialists in that period help?

The first appearance of the title "majesty" in the reign of Henry VIII is a curious coincidence, but I doubt whether it is more. We borrowed the word from the Romans, but not the original religious meaning.

Anuradhapura,

15th March, 1924.

Yours faithfully,

A. M. HOCART.

\* The whip of the leader has a somewhat thickened handle, that of the man behind him is as shewn above.

† MacDonnell's Sanskrit Grammar for Beginners.









FIG. 1.

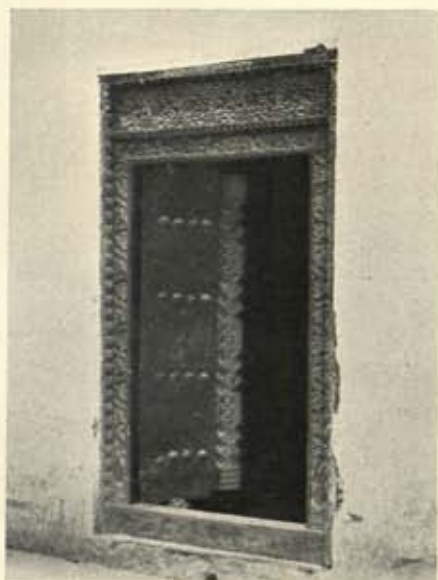


FIG. 2.

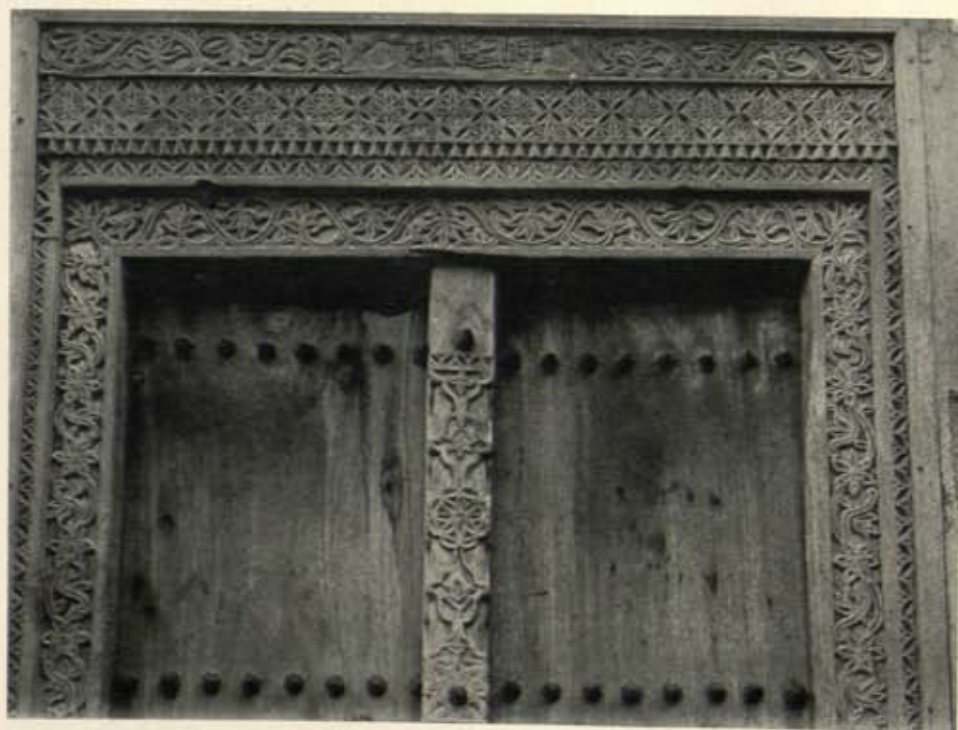


FIG. 3.

ZANZIBAR DOORS.



## ORIGINAL ARTICLES.

## With Plate F.

Africa, East: Art.

Barton.

**Zanzibar Doors.** *By Captain F. R. Barton, C.M.G. With Plate F.*

63

Some years ago, during a period of official service in Zanzibar, I took several photographs of the main doorways of Arab houses, with the intention of making an endeavour to work out the origins of the patterns carved upon them. Other matters interfering I never fulfilled my purpose, and I had almost forgotten the subject till recently, when the negatives came to light again. But the notes I made in Zanzibar have disappeared, so I am unable to give the local names of the patterns, or any other information that I may have collected from the Swahili artists who plied this wood-carving craft.

The art was fast dying out in 1912, and there were very few skilled craftsmen then surviving. The modern carved doorways in Zanzibar town are of local Indian workmanship, and are easily distinguishable from Arab or Swahili work by their more florid but less dignified style of decorative carving, and also by the fact that doors made and carved by Indians almost invariably have arched tops. Zanzibar Arab doorways are rectangular without exception.

It was the common custom of every Zanzibar Arab in the old days who was about to build a house, first to order and obtain a carved door-frame; this frame, having then been erected in its permanent position, the house was built on to it. The same procedure is still followed by Zanzibar Swahili in building their wattle-and-daub huts, though the door-frames in these cases are not necessarily carved. If the Arab for whom a house was being erected was a man of importance, it was usual to incorporate his monogram in Arabic characters with the carving on the architrave.

The chief carving designs are three in number: lotus derivatives, the rosette, and (?) a frankincense\* or date palm derivative. In every door-frame the designs on the two uprights spring at the foot from fish-like objects, figured, apparently, in a head-downwards position, which are generally represented with a conventional

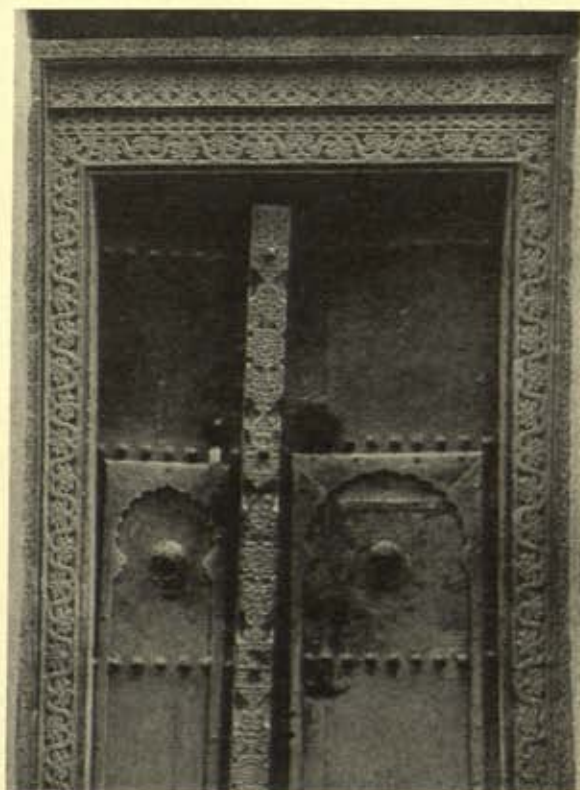


FIG. 1.

\* Cf. this pattern over the door-way (Plate F., Fig. 1) with frankincense trees shown in the Punt reliefs in the Deir-el-Bahri temple at Thebes.



scale pattern surface,\* and immediately below these fish-like objects there are sometimes figured two or three wavy lines, suggestive of the Egyptian hieroglyphic for water. The centre-post upon which the folding doors close is more deeply carved than the side uprights and lintel, and the design here employed is usually the lotus, with intermittent bosses figured with rosettes, or with variants of angular geometrical designs, and with flat scale-marked surfaces at top and bottom.

It seems probable that these Zanzibar lotus and rosette patterns were borrowed direct from Egypt or Assyria, and, if this be so, it is more than likely that the "frankincense tree" pattern and the fish-like object have been derived from the same source. But whereas the two former patterns present no difficulty, being unmistakably lotus and rosette, the derivations of the two latter—the tree and the fish designs—are not easy to trace. If there were any historical record of a direct trading relationship having existed in ancient times between Zanzibar and Syria,



FIG. 2.

one might hazard the suggestion that the fish represents the goddess Atargatis, for it is certain that the cult of that fish-goddess was widely spread in seaport towns by Syrian merchants. We know from the "Periplus of the Erythrean Sea" that Zanzibar was within the trading radius of, and was visited by, Egyptian Greek merchants and navigators from Red Sea ports as long ago as A.D. 100 or thereabouts; but it seems doubtful whether merchants from the Mediterranean littoral went as far as Zanzibar in early days. It may be that this fish pattern came to Zanzibar from Muscat, with which place there has been intercommunication from ancient times. If this be so, the fish pattern is probably to be seen to this day on carved Muscat doorways, but this I am unable to verify.†

A clue to the motive which induced the Arabs to lay so much apparent importance upon these carved doors is to be found, perhaps, in the symbolic meaning of the designs. The lotus, we know, was associated by the ancient Egyptians with reproductive power, and the rosette is held to be mainly a lotus motive. The fish-goddess was regarded by the Syrians as a protecting deity, and she was likewise the goddess of generation and fertility. Again, the production of life was typified by the function of water. There remains for attribution the "frankincense" or "date palm" symbol. If it be a frankincense tree, it may have denoted wealth; if a date tree, it, perhaps, symbolised plenty. Assuming these derivations and symbols to be correct, the deduction I think is obvious, namely: that the Arab builders of

\* On door-frames carved by Indians the fish-like object is usually represented by a pineapple shaped vase, having the skin markings also of a pineapple, and from this vase the floral decorative carving is made to spring.

† Having learnt from the Arabs in Zanzibar that Muscat doors are carved like their own, I commissioned a Gean photographer who was proceeding to Muscat to take some photographs of these doors. Unfortunately he took only the upper portions of them—as seen from the illustration here given (Pl. F., Fig. 3)—and so missed one of the most important details. Judging by these photographs the carving is more carefully executed at Muscat than at Zanzibar. The designs show, I think, strong traces of Indian workmanship.



Zanzibar houses in bygone times held that the symbolic devices carved on their doors and door-frames would serve to protect those within from the evil spirits without, and would, moreover, ensure the perpetuation of the family. And the motive of beginning the building of a house by first erecting the completed door-frame was, perhaps, that of preventing by anticipation malevolent powers from passing through, and so bewitching and defiling the spot upon which the inmates were to dwell.

F. R. BARTON.

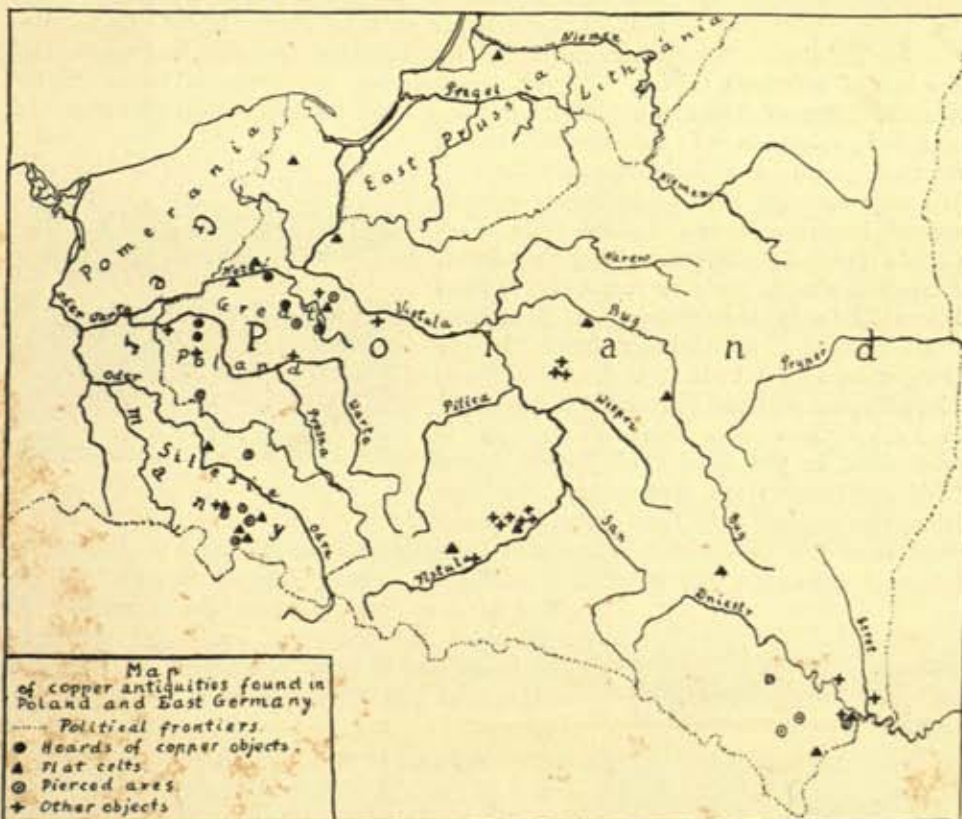
Poland ; Germany, East : Archæology.

Kostrzewski.

**Copper Implements and Ornaments found in Poland and East Germany.** By Prof. Dr. J. Kostrzewski, Local Correspondent for Poland of the Royal Anthropological Institute.

64

Although there was no real Copper Age in Poland, as *e.g.* in Hungary or in the Iberian peninsula, the number of the copper antiquities found up to the present in this country is very considerable. Great Poland\* alone gave us sixty-seven copper objects, in seventeen localities, and about a hundred have been found all over the country. We have also a certain number of analogous finds from the neighbouring parts of East Germany—Silesia, Pomerania and East Prussia.



A study of the forms and the distribution of these copper objects will probably throw a certain light upon the origin of this metal in our country as well as upon the route by which it penetrated northwards.

\* Great Poland is the old geographical name of the western part of ancient Poland, which contained the later Prussian province Posen (Posen) and the western part of Russian Poland.



By studying the *forms* of these copper antiquities we find that the greatest number of them are *implements*, and especially flat celts (fig. 1). Two of them were found in the Polish province now called Pomerania (formerly West Prussia), one in East Prussia, ten in Great Poland and five in Silesia, in what was formerly Prussian Poland, and in East Galicia. Far more rare are pierced axes and hoes of different forms. The most simple type with a round head and a vertical opening (fig. 2) is known only from Great Poland (3 specimens), and Silesia (1 specimen), while similar axes with a curved upper and lower side have been found up to the present only in East Galicia (2 specimens). In Great Poland were found also three slender axes with a long cylindrical or quadrangular head and a hole exactly in the middle (fig. 3). To Silesia belong two nearly pentagonal axes with a flat head (fig. 4).

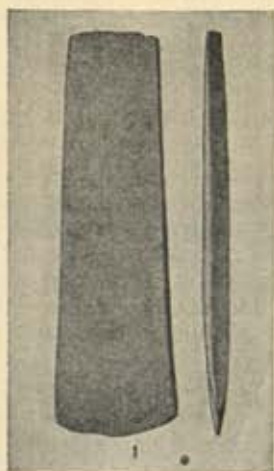


FIG. 1.

Four specimens of double axes with one vertical edge and a horizontal one are known (fig. 5). A slender specimen of this type has been found in Middle Silesia (three larger ones in East Galicia, Horodnica, distr. of Horodenka, Korszów, distr. of Kotonijja, and the last of unknown origin). Finally a copper hoe was found in Silesia (Gross Zauohe, distr. of Trebnitz). This hoe has a semicircularly enlarged edge and is adorned with ten indentations (fig. 6). We may mention here as belonging also to copper implements two knives from East Galicia (Słoboda Rungurska and Komarów), a crescent shaped knife or razor (fig. 7) from Bilcze Złote in the district of Borszczów (East Galicia), a fish-hook from Słoboda Rungurska and 5 awls (fig. 8) from Bilcze Złote (1 specimen) and Horodnica (1 specimen) in East Galicia and from Pietrzyków (3 specimens), in the district of Słupca (prov. Łódź). Weapons are represented by three triangular daggers only, from Bilcze Złote and Horodnica (fig. 9) in East Galicia and from Janiszewsk in Cujavia, and 9 flat-tanged arrow-heads (fig. 10) from 8 localities in former Russian Poland. On the



FIG. 2.

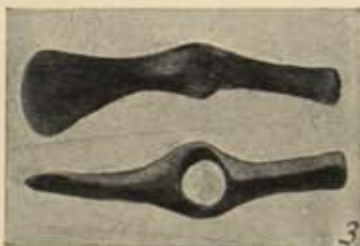
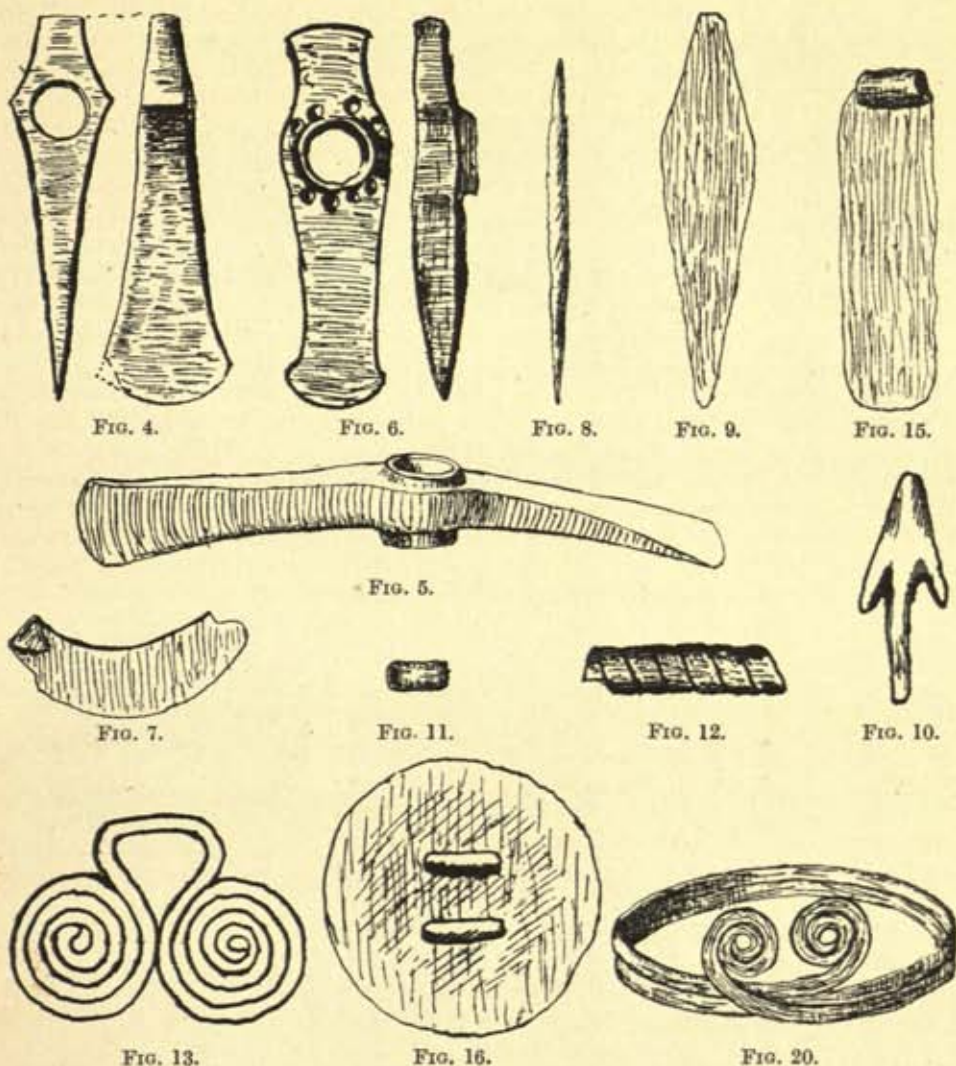


FIG. 3.

other hand, copper *ornaments* are numerous. In most cases they consist of beads and pendants. The beads are frequently made of sheet-copper and shaped like little cylindrical tubes (fig. 11). Ten examples are known from the region of Inowrocław in Great Poland, one specimen is found in Budy Dolne, in the district of Płock, several from Złota (district of Sandomierz), both localities in what was formerly Russian Poland, and one from Bilcze Złote and Koszyłowce in East Galicia respectively. Another form of copper-bead is the so-called "sałtaleone" (fig. 12), found in Skarbienice in the district of Żnin (Great Poland) [about 10], in Jordansmühl in Middle Silesia (several), Grabowa, Janina and Starawieś, district of Stopnica, province of Kielce.



Pendants are usually shaped like double spiral discs formed of wire (fig. 13). They come from Grabowa and Starawieś, in the district of Stopnica, from Jordansmühl



COPPER IMPLEMENTS AND ORNAMENTS FROM POLAND AND EAST GERMANY.

(several) and Iwowe, in the district of Minsk Mazowiecki (formerly Russian Poland). Rarer by far are pendants of sheet copper with a hooked end (figs. 14-15) either of rectangular form, like many specimens from Jordansmühl in Silesia, or of trapezoidal form (4 from the region of Inowrocław, Great Poland). Rare enough are rings of spiral copper wire (Wisłka Kościelna, district of Włocławek) or formed of a small ribbon-like plate (Jordansmühl and Grobia, district of Międzybóże, Great Poland). To the ornaments belong also a little flat button with a semicircular loop found at Pietrzyków, district of Stupeca and a big double-looped button found in Niwka, district of Śrem, Great Poland (fig. 16). Finally two copper pins with ends wound into loops come from the



FIG. 14.



region about Buk in Great Poland. Of the bigger ornaments mention must be made of spiral armlets or anklets (fig. 17) from Rudki in the district of Szamotuły



FIG. 17.

(5 examples), from Skarbienice, in the district of Żnin (4 examples), both localities in Great Poland, and from Jordansmühl in Silesia, two massive open armlets from Piotrowo, in the district of Szubin (fig. 18), three double spiral discs, found at Rudki, in the district of Szamotuły (fig. 19) and finally a wired spiral head ornament with ends wound into spiral discs from Jordansmühl in Silesia (fig. 20). Special attention must be called to a copper figure representing two bulls originally joined by a yoke, found at Bytyń, in the district of Szamotuły; the only analogous object known at present comes from Connanbre in Brittany. Besides the antiquities mentioned above some localities have furnished insignificant remains of copper objects, but it is quite impossible to identify them. Such fragments are known from Radojewice, in the district of Inowrocław and from Iwowe, in the district of Minsk Mazowiecki.

Considering the character of the finds, it must be noted that most of these copper objects discovered in Poland and East Germany were found separately and probably belong to settlements. Hoards of copper antiquities are known only in four cases, all belonging to Great Poland (Bytyń and Rudki, in the district of Szamotuły, Piotrowo in the district of Szubin, and Skarbienice in the district of Żnin). Comparatively very rare also are objects found in graves. Such are known only from Grobia, district of Międzybóże, in the region of Inowrocław, from Janiszewek, district of Włocławek and from Radojewice, district of Inowrocław, all in Great Poland; Jordansmühl in Silesia and Złota, district of Sandomierz, province of Kielce (formerly Russian Poland). Although in most cases it is impossible to establish with certainty to which of the different eneolithic cultures these copper antiquities do belong, they can be related to several objects found in settlements and graves. We know that copper objects appear in at least four different cultures in Poland and East Germany in the eneolithic period. Now and then copper implements may be found in megalithic tombs of the so-called Cujavian type (*e.g.*, at Janiszewek, district of Włocławek), oftener they appear in the culture of cord-ornamented pottery, both in settlements (Pietrzyków, district of Słupca), and in graves (Radojewice, district of Inowrocław and Złota, district of Sandomierz). Copper implements are numerous in the Jordansmühl culture and also in settlements belonging to the East Polish and Ukrainian civilisation, which is characterised by painted earthenware vessels (Bilcze Złote, Horodnica and Koszyłowce). All these cultures should thus be called eneolithic.

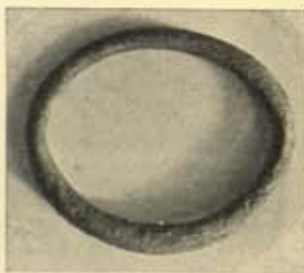


FIG. 18.

As for the origin of the Polish and East German copper finds, it must be mentioned that the material used for their fabrication was not of native origin, for no copper was produced in prehistoric times, either in Poland or in East Germany. It is quite probable that in most cases these objects came in manufactured form from abroad. Bigger objects in particular, *e.g.*, flat celts, pierced axes and hoes, daggers, knives, etc., were doubtlessly generally imported from the south, probably from Hungary, where we find a great number of close analogies. Only some small objects, especially ornaments, are perhaps of native origin.



The same must be said of some bigger objects like the massive oval armlets from Piotrowo in Great Poland, to which we have no contemporary analogies in other countries and which are so numerous during the 1st Bronze Age period in Great Poland; they persist here sporadically till the second period. Some flat celts also were probably cast in the country, judging from the fact

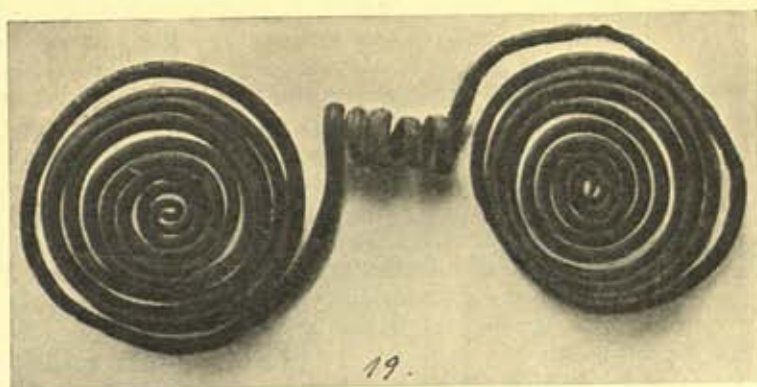


FIG. 19.

that a flat celt of Białydwór, in the district of Grudziądz (Pomerania) has been found still in its mould.

When we look at the map showing the distribution of copper finds, we notice a certain condensation of them in Middle Silesia and Great Poland. The concentration of these finds in Silesia may be explained by the greater number of inhabitants in these very rich and fruitful parts of the country. The same must be said of the considerable number of similar relics found in the north of Great Poland, especially in the fertile Cujavia. In both regions we find that this concentration occurs during the early Bronze Age (1st period). Nearly all the finds being of foreign (southern) origin, we may conclude that their distribution is connected with a trade-route which must have existed at this time. This trade-route probably ran from Hungary through Moravia and Middle Silesia to the Oder, passed the Oder near Breslau, thence ran down the river to Köben, from here northwards through the western part of Great Poland and, having crossed the Warka at Obrzycko, passed along the Noteć to Cujavia on one side and along the Vistula to the Baltic Sea on the other. The copper objects found in South Poland (in the districts of Stopnica, Miechów and Sandomierz) came thither probably through the "Moravian Door," like the finds more to the north of them in the district of Minsk Mazowiecki and Siedlce. On the other hand, the copper antiquities of East Galicia probably came directly from Transylvania through the Jabłonica pass, along the Pruth, to the Dniester. By the same route came the finds which belong to the more northern area—from Łwow, and from Hanna, district of Biała, and Łaski, district of Sokołów, both localities on the lower Bug.

J. KOSTRZEWSKI.

### Physical Anthropology: Sex Ratios.

Pitt-Rivers.

**Variations in Sex Ratios as Indices of Racial Decline. A Short Summary of a Paper read at the Melbourne Meeting of the Pan-Pacific Science Congress, Australia, 1923.** *By Captain G. Pitt-Rivers.*

65

The phenomenon of the decline, and in some cases the extinction, of many of the native Pacific races has been familiar to observers for the past sixty or seventy years; yet the failure in satisfactorily diagnosing the causes of this decline remains as evident as before. It is the problem of variations in racial adaptability to changed environmental conditions. A survey of population tendencies in the



Pacific regions and in America appears to show that the more specialised a people become through segregation and the agency of selection, the more closely adapted are they to the culture-forms and living conditions they have evolved or adapted to suit themselves. Any drastic changes in culture-forms imposed upon them leave them, for this reason, ill-adapted to the innovation. It is a psycho-physical problem, the physical consequences of which are illustrated in the phenomenon of the gradual extinction of unadapted peoples. The facts suggest that people are far less adaptable to great and sudden changes in culture-form than is generally supposed. A better method of investigation, a more exact use of terms, and a closer study of demographic facts will show that the supposed ability to "raise" a people in cultural level, as also the degradation of culture, is, in either case, dependent upon a blood substitution in the population.

Apart from a searching demographic analysis, the facts, however, are apt to be obscured by the gradual infiltration of foreign blood into a declining population and the frequent inability to discriminate between the unadaptable and unmixed stock that is declining and the new miscegenated stock which is capable of surviving under the changed conditions.

A necessary phase in the process of inductive synthesis whereby we hope to arrive at scientific hypotheses and laws is the establishment of correlations. In order to prove the correctness of the theory set out here it is necessary to direct attention to certain correlations which the writer believes can be established.

Without claiming that anything like finality has been reached in the task, the results of a somewhat laborious analysis and a review of many facts can now be offered for critical inspection.

Among the principal propositions, arrived at by analysis of demographic facts, which support the argument, are the following:—

1. Disturbances in the sex ratio of reproductive adults are correlated to the potential of an increase or decline in the population.
2. Progressive surplusage of males is an index of decline.
3. A stabilised or increasing population exhibits a tendency to produce a surplus of adult females of reproductive age over adult males.
4. There exists a general and universal tendency for polygynous communities to replace polyandrous communities which tend to die out. Since very few (if any) populations or groups produce an exact equality in the number of the sexes at reproductive age, practically all groups fall into one category or the other. The facts show (what is biologically understandable) that the monogamous woman outbreeds the polyandrous woman; or, in other words, that polyandry hinders or is unsuitable to reproduction. In every community there is a tendency for the men to become polygynous to the extent that the ratio of women to men makes possible; frequently, however, they are polygynous even when the ratio is unfavourable, but in no community do we find any appreciable proportion of the adult males remaining permanently celibate; it follows therefore that if the men exceed the women, the women become polyandrous, and if the women exceed the men, a greater number of the men become polygynous and a greater number of the women remain monogamous. Thus the polygyny not the monogamy of the men is the real alternative to the polyandry of the women, or, in other words, polygyny is the only insurance of the general monogamy of the women.
5. The progress of miscegenation is correlated to variations in the balance of the sexes.
6. The influence of miscegenation brings about a change in the adaptability of a stock, the hybridised stock being more adaptable to changed conditions, but less adaptable to the unaltered conditions suitable to a highly specialised stock. Cross-breeding will, therefore, only promote growth in population if new conditions



render the purer stock unadapted to them. Variations in masculinity as the result of miscegenation are conditioned by this fact.

Few anthropologists seem to have paid much attention to relation between the sex-ratio at birth and the sex-ratio at the reproductive age categories. The latter, which refers to variations in the sex-survival rate, is far more important anthropologically and far more variable. It is, however, as a rule, the least considered. When the sex-ratio is referred to, the sex-ratio at birth is usually implied. In an article on "The Respective Sex-Ratios of White and Coloured Races" in MAN, 1923, 97, Mr. Parkes assumes that the sex-ratio (at birth) is constant for ethnic groups. Intensive examination shows that this is only relatively true. Within a group the birth sex-ratio is not only influenced by ephemeral disturbing features in environmental conditions (for instance, refer to Savorgnan's work on the influence of the European War on the sex-ratio at birth; also the discussion of this subject by J. S. Huxley, *Eugenics Review*, Vol. XIII, p. 549). It is also affected by factors producing the progressive decline of groups distinguished ethnically and otherwise. Miscegenation influences the sex-ratio at birth and the sex-survival rate, but not consistently in the same direction. If it were possible to compute the pre-natal sex-ratio, and so eliminate the factor of differential foetal mortality, variations in sex-ratios would be correspondingly reduced. The important factor for computation is thus seen to be the differential sex-survival rate.

If upon examination it is found (as indeed the writer claims), whenever a given population exhibits a progressive surplusage of adult men over adult women of reproductive age, that the progressive excess is concomitant with a corresponding decline in the crude population, and, inversely, that a stable or increasing population exhibits a tendency to produce a surplusage of mature women over men, we may legitimately assume that some correlation exists between the two sets of facts, and that the study of masculinity may help to elucidate population or racial tendencies.

G. PITT-RIVERS.

### America, Central: Chronology.

Long.

**A Link between the Earlier and Later Maya Chronologies.** By  
Richard C. E. Long, B.A.

By **66**

In the *American Anthropologist*, 1922, pp. 44-60, is an article by Mr. Ralph L. Roys entitled "A New Maya Historical Narrative," which gives interesting information from the Books of Chilán Balam regarding the fall of Chichén Itzá in Katun 8 Ahau. It is not my purpose to deal with the subject of Mr. Roys' paper in general, but only to show that from a passage in it, translated from the Chilán Balam of Tizimin, a connection can be established between the Long Count of the early Maya and the Katun Count of the Maya of Yucatan and consequently with Christian chronology also.

The passage occurs on p. 46, as follows: "8 Ahau was when Ulel Ytzmal was enmeshed by deceit because Ulil the ruler had sinned. This was the founding of the katun in the 17th katun when came the prophecy of the rule of holy Ytzam Caan." Now Mr. Roys also gives the Maya text in which "17th katun" of the translation is represented by "uclahunpiz katun." This text throughout has the letter s instead of the z usually written in Maya words, so that in the ordinary spelling it would be "uclahunpiz katun." Since the number is greater than 13 it must be a time-reckoning different from the Katun Count. Grammatically, too, it is different because the numbers used with the days Ahau of the Katun Count are expressed absolutely, as, for example: "Oxlahun Ahau," "Thirteen Ahau" (not "Thirteen Ahaus"), while in the present case the numerical particle "piz" affixed to the numeral "uclahun," "seventeen," shows that it means "17 katuns



because in Maya one of the numerical particles, such as "piz," must be inserted between any of the lower numerals and the thing counted. The translation "17th katun" appears incorrect because a different form with a possessive pronoun is used for ordinal numbers. The mention of 17 katuns without reference to any point of time from which they are counted must have the same meaning as similar instances in the inscriptions of the Old Empire, namely, a period ending date equivalent to "(ending) 17 katuns (of the Long Count)." Now the time when Ulel Ytzmal was deceived and when there occurred the rule of Ytzam Caan was the Katun 8 Ahau, when Chichen Itza fell as appears from other parts of Mr. Roys' paper. This Katun 8 Ahau was, according to the Bowditch correlation, equivalent to 12-5-0-0-0 8 Ahau 3 Pax in the Long Count, and according to the Morley correlation it was equivalent to 11-12-0-0-0 8 Ahau 3 Mol. But when the katun number is known and the day number and sign are known a date satisfying the given conditions can only occur in the Long Count at intervals of 13 cycles (over 5,000 years). Goodman's tables show that the nearest occurrences of a katun 17 ending on 8 Ahau were 1-17-0-0-0 8 Ahau 18 Muan and 14-17-0-0-0 8 Ahau 13 Zac, both of which dates are so remote as to be quite out of the question on either correlation. This first trial, therefore, has resulted in a blank and we must seek further for an explanation. Turning now to Mr. Roys' extract from the Chilán Balam of Mani we find "Then were the Katuns 11 Ahau, 9 Ahau, 6 Ahau. In 8 Ahau the governor of Chichen Itza was driven out," &c. This last refers to the fall of Chichen Itza, which is here also stated to have happened in Katun 8 Ahau. Now it is curious that while 9 Ahau is the next katun after 11 Ahau yet there is a distance of seven katuns (about 140 years) from 9 Ahau to 8 Ahau and, further, that a Katun 6 Ahau will not occur between 11 Ahau and 8 Ahau. As the next katun after 9 Ahau is properly 7 Ahau, the "6 Ahau" is therefore probably a mistake for "7 Ahau," which could easily happen either in the Maya written in the Roman alphabet, since "uac" is "six" and "uuc" is "seven," or in the hieroglyphic original since the Maya numerals for these two numbers differ only by one dot. Be that as it may the essential point is that for some reason the Maya scribe first mentioned Katun 11 Ahau and proceeded by a series of katuns only partially given to Katun 8 Ahau, about 160 years later, when the events narrated occurred. Referring to Goodman's tables we find the nearest occurrence of a Katun 17 on 11 Ahau is at 11-17-0-0-0 11 Ahau 8 Pop and consequently the Katun 8 Ahau next after this would be 12-5-0-0-0 8 Ahau 3 Pax. But this last is exactly the date in the Long Count that the fall of Chichen Itza did occur on, according to the Bowditch correlation. The Morley correlation makes 12-5-0-0-0 8 Ahau 3 Pax the date of the fall of Mayapan, nearly 260 years after the fall of Chichen Itza, and is consequently impossible.

Returning now to the first passage quoted it will be found consistent with this dating. The meaning appears to be "This (the events of 8 Ahau including the rule of Ytzam Caan) was the founding of the katun in Katun 17 when (i.e., in Katun 17) came the prophecy (of that rule)." A prophecy should be prophetic and it would not be so if it was made in Katun 8 Ahau at the date of the events, but it would be if made or supposed to be made in the preceding Katun 11 Ahau, which was also a Katun 17 in the Long Count. The belief in such a prophecy would also explain why the Chilán Balam of Mani begins with Katun 11 Ahau before mentioning the events of Katun 8 Ahau.

It appears, then, to be established by the foregoing that the fall of Chichen Itza occurred on 12-5-0-0-0 of the Long Count and, if that be granted, then it proves that the Bowditch correlation of Maya and Christian chronology is the correct one, as I have elsewhere shown on other grounds.

There is nothing improbable in supposing that a prophecy and its fulfilment are referred to in these passages. It is well known that the Maya attached great



importance to such predictions. A striking instance is the reply of Čanek, the ruler of Peten Itza, to the Spanish priests who tried to convert him: "That the time had not yet arrived which his Ancient Priests had foretold unto him in which they were to put aside the adoration of the Gods; because the Age in which they were at this time was that which they called Oxahau, which means Third Age" (quoted by S. G. Morley in "The Inscriptions at Copan," Washington, 1920, p. 492). There are constant references in Landa to the oracles and prognostics associated with various time periods and it is evident that the intense pre-occupation of the Maya with their calendar was not for the sake of science, for which they may have cared as little as the average white man, but rather for the practical purpose of foretelling the future. The powerful influence of the belief in calendrical predictions may help to explain their history. Thus the regularity with which the salient events in the later Maya records each occurred in a Katun 8 Ahau has at first sight too orderly an appearance to be true. But it seems a reasonable explanation that while migrations such as the departure from Nonoual and the abandonment of Chakanputun and revolutions such as the fall of Chichen Itza and of Mayapan were, as elsewhere, the outcome of slowly increasing forces, yet the choice of the time for the change was determined by a belief that a new state of things ought to arise every 13 katuns. Such a belief would encourage those who desired a change and make the upholders of the old order feel that they were doomed. So Landa says they expected changes of rulers in the 1x years. One may note, too, that the contemporaneous dates at Palenque cease at 9-13-0-0-0, a date which is 13 katuns from the beginning of cycle 9 and is, according to the Bowditch correlation, the date of the departure from Nonoual.

A similar belief may have brought about the sudden collapse of the Old Empire at Cycle 10. It is noteworthy that of seven "prophetic" dates cited by Prof. Morley (*op. cit.*, p. 228), no less than five refer to the Cycle 10 period ending, then still in the future, which shows how much the minds of the priests were obsessed by the approach of this date, doubtless believed to portend great changes for the race. Since their culture had grown and blossomed in Cycle 9 they may well have thought that it should also die with it.

This suggestion is in no way inconsistent with Prof. Morley's views as to the causes of the fall of the Old Empire, nor with the fact established by him that the abandonment of the region was gradual. Though it is true that the cities were not all abandoned at once, yet the decline was very rapid as the Cycle 10 ending date approached, and the few Old Empire cities which survived it did not do so for long. It would seem as if the Maya, feeling the pressure of natural causes which they did not understand, tried to remedy them by erecting more and more monuments to appease the gods—an endeavour which caused the extraordinary development of religious art culminating in the Great Period, but hastened their decay by exhausting their resources. This would explain the short but brilliant career of Quirigua, lasting only 65 years, during which the inhabitants erected the largest stela and the most elaborate animal figure ever attempted by the Maya, and never missed commemorating a hotun by a marker, but abandoned the site 20 years before Cycle 10 after having carried on their labours for the significant period of 13 hotuns. The pace was too severe to last and, finding their piety unrewarded, they did not dare to wait for the fatal cycle ending—so fatal that it is nowhere in the Old Empire recorded as a contemporaneous date.

Thus the Maya, like the Etruscans (Flinders Petrie, "The Revolutions of Civilisation," p. 9), may, through the influence of mythology, have attained to a great truth of history—the cyclic character of civilisation.

RICHARD C. E. LONG.



## REVIEWS.

## Babylonia.

Langdon.

*Oxford Editions of Cuneiform Texts. Volume II. The Weld-Blundell Collection, 67*  
*Vol. II. Historical inscriptions, containing principally the chronological prism,*  
*W-B. 444. By S. Langdon, M.A. Oxford University Press, 1923. Price, 10s. net.*

Recent discoveries in Mesopotamia seem to indicate that from that country we shall obtain a system of chronology both older and more reliable than that arrived at from Egyptian sources; it seems likely, too, that we may in time be able from Babylonian material to settle the rival claims of the different exponents of Egyptian chronology. The latest reports seem to show, also, what had long been suspected by some, that certain elements of civilisation, notably writing and the use of metal, developed on the banks of the Tigris and Euphrates earlier than in the valley of the Nile.

Tablets from Nippur, giving lists of kings down to about 2000 B.C., have been known for some few years, but, as they were fragmentary, there was some uncertainty as to their interpretation. The Weld-Blundell prism is identical with one of these, and as it is nearly perfect, we have a complete record of all the kings, with the length of their reigns, from the Creation of man until 2098 B.C., as they were understood to have existed by the scribes of Isin at the latter date.

But for an exact chronology we need to have some date fixed in terms of our era. Hitherto we have trusted to a calculation made a few years ago by Father Kugler, S.J., based upon an astronomical interpretation of a tablet recording observations of the appearances and disappearances of Venus during the reign of Ammizaduga, King of Babylon. Dr. Fotheringham has recently made fresh calculations, the results of which reached Professor Langdon just as this volume was going to press, and has determined from these observations that the sixth year of Ammizaduga must have been 1916-5 B.C. As the last king of Isin, Damik-ili-shu, ceased to reign in the twelfth year of Sin-muballit, King of Babylon, it has been possible to assign accurate dates to the series.

The prism begins with eight antediluvian monarchs, the length of whose reigns place Methuselah in the shade. Then follow dynasties of Kish, Erech and Ur, then those of Awan, Kish (2), Hamasi, Erech (2), and Ur (2). From the beginning of the last, which we must place at 3301 B.C., the list and dates are unambiguous. But as far back as the beginning of the first dynasty of Ur the tablets are not altogether unreliable, and if we follow Professor Langdon's explanations we must date this event at about 3944 B.C.

That this dynasty actually existed has been made clear by discoveries made at Tel-el-Obeid since this volume appeared. From this site Mr. C. L. Woolley reports the discovery of a marble tablet which, according to Mr. Gadd, records that a temple was set up there to the goddess Nin-khursag by King A-an-ni-pad-da, son of King Mes-an-ni-pad-da of Ur. Though the first mentioned of these monarchs does not appear in the list on the prism, the name of his father is given as the first king of the first dynasty of Ur. Dr. Hall brought back from the same site in 1919 a stone figure bearing an inscription in somewhat more archaic characters, so that, though the exact dates of this dynasty may possibly require adjustment, its existence has been placed beyond doubt.

But the first dynasty of Kish, the first after the flood, stands on more precarious grounds. Nine hundred years is no uncommon length for the reigns of some of its kings, while one is recorded to have reigned for 1500 years. Nevertheless, recent discoveries of Professor Langdon at Oheimer, the site of the ancient Kish, show that there is beneath later ruins a thick deposit containing fragments of pottery



and other remains. Among these, quite recently, he has found a tablet, engraved with very primitive characters, which form a kind of picture writing. Thus, it would seem, we have got back almost to Methuselah. H. J. E. P.

### Europe: Ethnology.

Günther.

*Rassenkunde des Deutschen Volkes.* By Dr. Hans F. R. Günther. Third Edition. München, 1923. **68**

If this valuable work fails to receive in this country the attention it deserves, it will be more the fault of its publisher than of the author, for the former has chosen to issue some 500 closely printed pages in a particularly trying Gothic type. Undoubtedly the work is a serious contribution to the anthropology not only of Germany but of Europe, one of its most meritorious features being the large number of type photographs reproduced. Less admirable is a general deficiency of documentation, as well as the impression received of a certain lack of achromatism, evidenced by a special sympathy with the Nordic race.

Dr. Günther recognises four European races—the Nordic, the Alpine, the Mediterranean and the Dinaric; but surely there is no adequate reason for calling the Mediterranean the “Western” race and the Alpine the “Eastern”? As to the Dinaric, he draws so successful a picture as to leave the reviewer with the idea that it is legitimate to speak of a Dinaric race—at any rate provisionally, i.e., until genetics has brought more light to the study of mixed races.

The combination of round head (C. I., 84-86) with long face (F. I., 92-95) is regarded as typical of the Dinarics; apart from this, the occipital region is flattened vertically, so that, morphologically, the Dinaric skull is distinguishable from the rounded Alpine at sight. The development of the nasal bones supporting a prominent nose is another characteristic of the Dinarics; the skin tends to be pigmented; “south-European” hair abundant and dark, and eyes dark brown. It seems that these characters occasionally give rise to an almost Jewish face (e.g., type No. 194 from the Tyrol). It is recognised that the Dinarics are somewhat closely related to the Armenoids, while it is suggested that a combination of Dinaric head form and Nordic colouration is to be found in a number of prominent German literary men, some of the highest genius. On the psychic side the Dinarics are fighters (their discipline and pluck during the Great War is noted) and traders, and are said to include many celebrated musicians; but the list as it stands is not particularly convincing, since no attempt is made to differentiate those having pure or predominant Dinaric traits from those in whom other characteristics are *beigemischt*.

The chapters on the psychic characters of the European races are most interesting, but here, as elsewhere in the volume, the reader will profit most whose attitude remains keenly critical. C. G. S.

### Africa, West: Ethnography.

Rattray.

*Ashanti.* By R. S. Rattray. Oxford: Clarendon Press, 1924. 25s.

It is vain to try to make clear in a short review the value of this book, the soundest piece of research, in my opinion, that has yet seen the light in relation to West Africa. Knowing the language thoroughly, Mr. Rattray has won his way into the hearts of the Ashanti people, and the leaders of society, queen mothers, chiefs and priests, have revealed to him their most cherished secrets. He seems to have made them understand that the white man's policy, as directed by such men as Sir Frederick Guggisberg and Mr. C. H. Harper, is to preserve and develop all that is best in native custom, so that the nation may achieve self-realisation **69**



according to its own genius. The successful handling of the recent trouble in regard to the Golden Stool may be cited as a crucial instance of the usefulness of an applied anthropology. Here, as in other contexts—for instance, that of the system of land-tenure, on which Mr. Rattray has an enlightening chapter—it is all-important to grasp the religious side of the matter, so predominantly real to the native mind, while apt to be ignored altogether by administrators of the short-sighted philistine type.

Dealing first with the social organisation, Mr. Rattray discloses a curious bilateral system, not without analogies elsewhere in Africa, as Dr Hartland has lately showed in his Frazer Lecture. In the background, is a striking theory of conception, according to which every individual consists of two elements, *mogya*, blood, and *ntoro*, spirit, the one contributed by the mother, the other by the father. Descent is matrilineal, in the sense that the clan (*abusua*) follows the blood, with the result that marriage with the mother's sister's daughter is prohibited in accordance with the ordinary rule of clan-exogamy. But the *ntoro* also sets up a bar to marriage, so that the father's brother's son is likewise avoided. Further, there are recognised *ntoro* exogamous divisions involving quasi-totemic taboos, so that the patrilineal basis of family life is hardly less well marked. Only as regards succession does the matrilineal way of reckoning kinship have the clear advantage. The *abusua* inherit, and rather than that a member of the *ntoro* should succeed custom decrees that a slave-heir should be set up; who, carrying on the old master's home on the same spot, can attend to the rites in honour of the departed spirits.

Religious ceremonies of various kinds are next described in full detail, and no one who reads and duly marks the spirit in which the worshippers approach the sacred influences, whether ancestors or subordinate deities or 'Nyame, the supreme Sky-god, is likely to think any longer of West Africa as the "land of fetish," in the sense of a land where the purely spiritual is not recognised as existing in its own right. Of the sacred customs witnessed by Mr. Rattray, perhaps the most interesting is the *Apo* ceremony, a sort of saturnalia, the object of which is to get rid of all pent-up feelings of ill-will. Nothing could be more in keeping with the modern philosophy of psychotherapy than the explanation given by a high priest to the effect that, after thus speaking freely, a man's *sunsum* (soul) becomes cool and quiet. Again, it is not given to every anthropologist to have visited the cave-sanctuary of a god, even such a spot as appealed to the awe of palæolithic man in Europe; there being evidence, by the way, in the shape of a grooved boulder, that connects this cave with the neolithic stage of West African history. But about neolithic implements from Ashanti, about the drum-language, the riddle of which Mr. Rattray has triumphantly read, and about many other matters of supreme interest, there is no room to speak. Suffice it to say that it is all first-rate stuff, from the first to the last word.

R. R. MARETT.

## Evolution.

Thomson.

*What is Man?* By J. Arthur Thomson. Pp. x + 244. London: Methuen. 1923. 6s. 6d.

70

This is a series of ten untechnical lectures reviewing the main questions of human evolution from the point of view of general biology. The book should be of considerable interest to anthropologists, as it gives them the mature views of one of the best of our biological thinkers on their problems. He writes with his usual felicity of expression and with an ease that here and there makes a problem seem less intricate than it really is. The early types of man are reviewed very fairly, though one regrets the author's adherence to the old view which recognised only Grimaldis and Cro-Magnons in the Aurignacian Age. Gregarious habits and



mental activity are considered as fundamental factors of man's rise, but special stress is laid on the prolongation of infancy and of the pre-natal period, and, with this, of the possibility of growth of gentleness. Thomson attaches importance to the early arboreal apprenticeship of man's ancestors and thinks, with Lull, that man came down from the trees in a relatively arid land. He sees early man relatively weak but brainy and adventurous and especially variable; he was sociable and maternal care was increasing. With the erect posture he seems to have acquired speech, and thence a possibility of social registration of gains. He follows Westermarck in the main on origins of marriage, and has interesting reflections here on several points, following them up by discussion of the survival value of society, with an appeal for consideration of each society under the "Geddes" headings of place, work, folk. The author deals with the evolution of man's mind, with the forms of behaviour and conduct, including the rôle of the unconscious. He then tries to give his readers a glimpse of the process of inheritance, and here the glimpse is too fragmentary and fleeting to be of great value, but the reader may refer to Professor Thomson's well-known book on Heredity for further detail. A rapid, but keen, survey of man and society in relation to natural selection will be read with interest, and will lead the student on to the author's very moderate plea for constructive eugenics, and especially for the careful sifting of expenditure, according as it helps or hinders multiplication of subnormal types or spreads of unhealthy or healthy occupations. It will thus be seen that Professor Thomson's method is to get at the real through the ideal, and of this attitude he is certainly one of the foremost exponents we have to-day. A useful bibliography is given at the end of the book, and several references are to 1923 publications.

H. J. F.

## CORRESPONDENCE.

## Ethnology.

Fleure.

*To the Editor of MAN.***The Racial History of Man.**

DEAR SIR,—Professor Roland Dixon has courteously pointed out an oversight on my part in my recent review of his "Racial History of Man." I had not found his reference to the possible dominance of brachycephaly, at least in Central Europe, over dolichocephaly and he draws my attention to such a reference on page 512. I regret the mistake.

Yours faithfully,

H. J. FLEURE.

## Ethnography.

MacMichael.

*To the Editor of MAN.***A Strange Milking Custom.**

DEAR SIR,—Apropos of the article entitled "A Strange Milking Custom" (MAN, 1924, 31), it may be of interest to mention that a similar custom is still prevalent among the Baggára tribes of Kordofan and Darfur. I remember being told in Darfur in 1916 that the late Sultan Ali Dinár, when defied the previous year by Musa Madibbo, the powerful sheik of the Rizeiqát Baggára, addressed a letter to his troublesome subject which rather unfairly began, "Ya nafáh el buqquer" ("You blower-up of cows!").

Yours faithfully,

H. A. MACMICHAEL.

Khartoum, Sudan,  
16th March, 1924.



Africa, West: Archæology.

Migeod.

*To the Editor of MAN.***Stone Circles in the Gambia.**

SIR,—In the paper by the late Henry Parker in the *Journal* of last year<sup>73</sup> there are some points on which I should like to add a few notes.

The African Society's *Journal* of 1915, page 414, contained an article of mine in which I discussed the place-names in West Africa mentioned by Ptolemy. I based my statements on the 15th century maps in the British Museum.

The Daradus river I accepted as the Senegal, as does Mr. Parker, but Mr. N. W. Thomas in his note in *MAN* (1924, 17) disagrees. I still think that the Daradus can be accepted as the Senegal.

The Perorsi in those maps are placed inland. This people I identified in a subsequent note with the Kperese, who now dwell at the back of Liberia.

The Stachir may be either the Saloum or the Gambia. The entrance to the Gambia is difficult to find among the shoals, and there is no conspicuous landmark. As the sea-board of all that country is flat, any one of the neighbouring rivers would answer the description given.

Mr. Parker says Garamantes are from a town, Garama. This fact alone dissociates the second part of the word from any connection with Mande. The "—tes" tacked on to what was perhaps Garama is a non-African suffix. In the old maps the Matites (note the same "—tes" plural suffix) are shown inland, and the Mati are undoubtedly the Mande. I have heard "nd" pronounced "t." This is in the Sherbro or Bullom language. The example I had of it was very relevant, being Matingo for Mandingo. Evidently the old voyagers only knew the Mandingo (Mande) through the coast tribes along what is now Sierra Leone, and they were as now the Bullom.

I agree with Mr. Thomas that the etymology of the name of the town Buluba as given by Mr. Parker is scarcely tenable. I would mention that "bulu" means town in Kanuri, the language of Bornu; but in Kanuri it may be a corruption of the Arabic Billad, and so a borrowed word. As it is a common practice for towns to be named from their founder, many towns in the list given by Mr. Parker may have been so named; and, further, the names of towns in Africa are often changed, and the towns themselves are of a very temporary nature.

It is beyond doubt that in Carthaginian times the Sahara was of smaller extent than at the present day. The fertile lands north and south were much nearer one another, and the habitable areas within the desert of greater extent. It is, therefore, quite likely that some dialect of Mandingo like the Soninke was spoken by a considerable population in what is now a desert area, wandered over by the Tuaregs (Berbers) alone. The Garamantes, whether Berber or Teda, had very probably a subject negro population in at all events the southern part of their dominion.

Mr. Thomas thinks the Mandingo may not even have been in existence some two thousand years ago. He also says, if they were, "it will take a good deal to prove that their language has undergone no change in two thousand years." On both these subjects I fear I disagree with him. A spoken language has very great tenacity of life, more so perhaps than a written one.

I might add that stone pillars, singly and in groups, in addition to occurring in the places mentioned by Mr. Parker and Mr. Thomas, are common in the country round the upper waters of the Cross river, but I have not seen any there arranged in circles. The object of pillars in groups would seem to be to prevent the passing of evil spirits.

Yours faithfully,

F. W. H. MIGEOD.

\* "Stone Circles in Gambia," *J. R. Anthropol. Inst.* LIII, pp. 173.









FIG. 1.



FIG. 2.

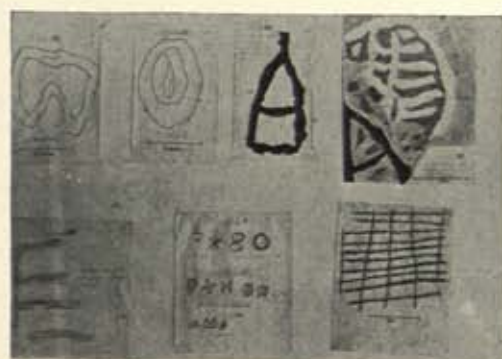


FIG. 3.



FIG. 4.



FIG. 5.

ROCK PAINTINGS FROM PAPUA.



## ORIGINAL ARTICLES.

With Plate G.

Papua : Art.

Strong.

**More Rock Paintings from Papua.** By W. Mersh Strong, M.A., M.D., 74  
*Government Anthropologist, Papua.*

In MAN, 1923, 119, I published some notes on Rock Paintings from New Guinea. In the following, I have described further examples which were discovered during the month of September, 1922. These were found in the Sogeri district inland from Port Moresby and near the village of Nahatana, some twenty miles further inland than the previous finds. Three distinct stations were visited, and almost obliterated signs of paintings were seen in one other place. All the stations occurred in country consisting of dark-coloured basaltic conglomerate, with white rocks of an andesitic type interbedded at places.

*Station I.*—This station consists of a cleft or grotto in the rock which has evidently allowed the passage of water through it. The cleft is roofed over by a layer of black basaltic rock still *in situ*. Beneath this is a layer of whiter rock identified by E. R. Stanley, Esq., Government Geologist, Papua, as being of an andesitic nature.

The paintings were in red and yellow, with a little white. There appear to be two distinct series, one in red and yellow over a fainter series of designs with much white in them. A few very crude chevrons are also incised on rocks near the entrance.

Pl. G., Figs. 1 and 4, give the designs in detail. Fig. 1 was obtained by making tracings, colouring them in, and afterwards photographing them.

In the village of Nahatana a stone was found incised with a series of lines crossing at right angles. (See Pl. G., Fig. 3.)

The natives of the surrounding villages know nothing as to the origin of these paintings. The only definite information I could get was that the father of an elderly native had told him that at one time he used to go hunting and sleep at the rock shelter, and that the paintings were there then. The natives showed no sign of fear or reverence for the paintings. Their attitude was rather that of quite mild and restrained curiosity. The village policeman told me that the incised rock I saw in the village of Nahatana had been found in the Laloki river, and had been brought up into the village apparently as a curiosity.

*Station II.*—This station was some four or five miles away from the first station in a westerly direction. It was down by, and practically on a level with, the river. Fig. 2, Pl. G., upper row, were obtained from it by photographing coloured-in tracings of the individual designs. Unlike station I, many of the paintings had been first deeply incised and then painted red.

The incised paintings were quite different from the crude incised chevrons at station I, or the incised stone in Nahatana village. Those were quite crude, and appeared as if they could have been made with any chance angulated piece of stone; those at station II were deeply and regularly incised, and would appear to be beyond the power of anyone except a skilful stone-worker.

Incised stones have been found in Papua, but two or three hundred miles away, and, as far as I know, only in the form of crude rings.

The natives knew nothing about the origin of the paintings; but the shelter showed marks of fire on the rocks, apparently of recent origin. The designs at times almost suggest early and crude attempts at writing, and recall the Azilian designs of Europe.

*Station III.*—This station is about midway between stations I and II on the steep side of the river bank, high up and overlooking the river. It was, perhaps,



the most impressive of the three stations. Pl. G, Fig. 5, gives a general idea of the paintings. These were more or less similar in style to those found at station I; and there were also unpainted incised designs quite similar to the painted incised designs found at station II, but in this case not painted. White entered more definitely into the paintings than it did at station I. Pl. G, Fig. 2, lower row, and Pl. G, Fig. 3, upper row, show some of the designs in more detail. The first two designs in photograph Pl. G., Fig. 3, are incised only.



FIG. 1.

In two or three cases, paintings were superimposed. In such cases the later paintings were much fresher-looking than those below. This may indicate a wide difference in age, or it may merely indicate that the later artist partly obliterated the work of his predecessor before covering it up.

The top right-hand design of Pl. G, Fig. 3, shows the best example of this superposition. Here a figure resembling a capital "A" is superimposed on an older red and white design of a different character.

Indistinct black painted lines were also seen on the rock in the form of two intersecting series of lines at right angles, and reminded one of the incised design on the stone in Nahatana village.

*Stone Mortars and Pestles.*—In connection with these prehistoric paintings, it is interesting to recall the fact that stone mortars and pestles are, from time to time, dug up in the country of a character quite different from any stone or other implements made or used by the present-day natives of Papua on the arrival of Europeans in the country. Further, there are accounts, apparently quite authentic, of these implements having been found fourteen feet under



FIG. 2.

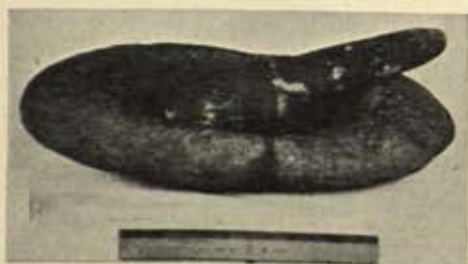


FIG. 3.

river deposits, which does not, perhaps, indicate necessarily any great age. There are somewhat similar accounts of mortars and pestles having been found in a similar situation on the west coast of North America.\* Figs. 1, 2, 3, all on the same scale, are examples of such stone mortars and a pestle, which are found over a wide area of country from the Mambare in the north to the Lakekamu in the west, and Woodlark Island in the east. Until the introduction of metal implements, the modern natives of Papua used stone tomahawks, elaborate stone clubs, and a stone tapa cloth beater; but I have never seen or heard of their making or using stone mortars or other implements of stone.

#### DESCRIPTION OF PLATE G.

FIG. 1.—All six of these designs are from station I, and are done in red and yellow. One suggests the figure of a man, one is a wave-like design, and four suggest leaves.

FIG. 2.—The upper row are all from station II. The third from the left-hand side recalls the style of station I, and is done in red and yellow. The others are all done in red, and

\* Keith, "The Antiquity of Man," page 285. Williams and Norgate, London, 1920.



include two insect-like designs suggesting a centipede and several geometrical designs recalling the Azilian of Europe.

The lower row are all from station III, and were all painted in red only, except the one on the right which was done in red and white. On the left-hand part of the design shown on the extreme left of the lower row, there was a faint deposit, probably of calcium carbonate.

FIG. 3.—The designs in the upper row and the first in the lower row are also from station II. The first two of the upper row are deeply incised in the rock, and were found on the curved surface of the rock below the paintings seen in Fig. 5, behind where the natives are sitting. Although more exposed to the weather than the paintings above, I hardly think they can have ever been painted. The third design in the upper row is interesting, because it is clearly more recent than many of the older black and white designs. The fourth design in the upper row shows a similar design in superposition on an older red and white design. The first design in the lower row was done very faintly in black.

The second photograph in the lower row are free-hand sketches\* and not tracings. The upper series are from station I, done in red. In the case of the two on the right, there are yellow spots in the centre of the circles. The middle series are all from station II; the five larger ones to the left are both deeply incised and painted in red; while the two smaller ones to the right resembling a capital "L" and a capital "X," are painted only. The pear-shaped design on the extreme right measured, approximately, 6 inches by 4 inches.

The three in the lower row are from station III; they are incised and unpainted.

The last design at the right-hand side of the lower row represents the incised design on the stone found in the creek by the natives and taken to their village. The photograph was obtained by squeezing a piece of wet paper over the stone, and when dry painting in the incised lines crossing at right angles.

FIG. 4.—This is a photograph of a portion of the rock shown *in situ* in Fig. 5. The parts painted white show up more prominently in the photograph than they do in the specimen itself, and suggest that here we have a series of red and yellow designs painted over an earlier series of branched white designs.

W MERSH STRONG.

## Scandinavia : Archæology.

Moscheles.

**On the late-Quaternary History of Scandinavia.** By Dr. Julia

Moscheles.

75

Some ten years ago I tried to find out whether the late-Quaternary chronology established by Penck and Brückner for the Alps applied also to the North European glaciation. As De Geer has pointed out, the recession of the ice-sheet went on almost uninterruptedly in Sweden, though at a varying rate. Over the lowlands of Sweden the thickness of the ice appears to have been so great that the minor oscillations of climate during late-Quaternary times affected only the rate of recession, without producing a prolonged pause or a marked advance of the margin of the ice-sheet, the glaciation being always larger than warranted by even the most severe climatic condition during late-Quaternary times.

In the case of the mountain glaciation of south-western Norway with its valley-glaciers it seemed more likely that it would be possible to find oscillations of the glaciers in correspondence with climatic changes, as there, in the late-Quaternary period, harmony seems to have existed between glaciation and climatic conditions. Between the Kristiania-fjord and the Nordfjord glaciers still reached sea-level during at least considerable portions of late-Quaternary times. Their terminal moraines are connected with marine terraces, and the oscillation of the shore-line, raised beaches and shell-banks, proves most important in the study of late-Quaternary chronology.

For long only two subsidences of the land during late-Quaternary times were recognised in Scandinavia, the arctic Yoldia-subsidence, or epiglacial subsidence in the terminology of De Geer, and the almost recent, warm-dry Litorina-Tapes-

\* With this exception, all the other designs shown in Figs. 1-3 are from tracings, and the 3-inch lines seen near each design indicate the true scale.



subsidence. Yet as early as 1899, Jessen\* had described from Vendsyssel the traces of a third subsidence, younger and of a less arctic character than the Yoldia, but far older than the Litorina period. De Geer also produced evidence for this finiglacial subsidence in Western Sweden.† In the region around the Kristiania fjord this finiglacial subsidence was studied by A. M. Hansen,‡ whose results must be considered as the pivot of all further investigations on the late-Quaternary history of Scandinavia.

During the recession of a glaciation, which in all probability caused the formation of the so-called lake-moraines of central Sweden, the Yoldia subsidence had already passed its culmination. An elevation of the land followed, while at the same time climatic conditions became more genial. All the marine clays, the fauna of which indicate the amelioration of the climate, are to be found outside the Raer. Within the Raer they were eroded by the re-advancing glaciers and the Raer themselves are but the clays pushed forward and heaped up by the advancing ice-margin, covered by a rather thin layer of morainic material. Inside the lake-moraines of Central Sweden, the Yoldia clays were not disturbed by any new advance of the ice: the lake-moraines of Central Sweden and the Raer belong therefore to two different late-Quaternary stages, divided by a warmer period, when the glaciers had retreated from the region of the Kristiania fjord and when the fauna of the clays deposited during a rise of the land passed from the arctic Yoldia clays to the temperate Isocardium clays.

The Raer are of subaerial origin, their morainic material is not stratified, though the clays pressed up by the advancing ice were sometimes mistaken for stratified glaciomarine sediments. Again we must not forget, that the Raer are no true terminal moraines, due to a prolonged pause of the ice-margin. They but mark the maximum advance of the ice during this stage. Then the ice retreated and the long pause of this stage produced the terminal moraines south of the large Norwegian lakes. Into these moraines the shore-line of the time of the maximum of the finiglacial subsidence,—here called Portlandia-subsidence after its characteristic fossil *Portlandia lenticula*,—was carved. The late-Quaternary stage, represented by the Raer and the Norwegian lake-moraines, is contemporary with the beginning of a new subsidence, the maximum of which was reached, however, only after the accumulation of the terminal moraines of this stage.

The amount of the Portlandia-subsidence appears to have been about the same as that of the foregoing Yoldia-subsidence, that is about 600 feet in the interior parts of the fjords. Therefore it will easily be understood, that the traces, deposits and surface-features produced by the second, but little known, subsidence were often taken as belonging to the first. This was especially the case with the Nordfjord, where according to Kaldhol§ moraines belonging to two different late-Quaternary stages occur, separated from one another by a warmer period, when the region was free from ice even to the innermost recesses of the fjord. The terminal moraine at the lower end of the Hornindalsvand belongs to the older stage. Its formation is anterior to the maximum subsidence, here only amounting to about 210 feet, for at this height a marine beach was cut into the moraine, the latter obviously having been formed before the maximum subsidence.

During this maximum subsidence the Hornindalsvand was, for a time at least, free from ice, for it was invaded by the sea, which near its upper end near Kirkhorn left marine clays, lying to-day at an altitude of about 420 feet, the amount of the

\* *Danmarks Geol. Unders., R.I., No. 3.*

† G. De Geer, "Quaternary Sea Bottoms of Western Sweden."—*Geol. Congress, Guide No. 23.* Stockholm, 1910.

‡ A. M. Hansen, "Fra Istiderne: Vest Raet."—*Norges Geol. Unders., No. 54.*

§ Kaldhol "Nordfjords Kvartæravleiringer."—*Bergens Museum Aarbog, 1912, No. 3.*



uplift having been greater in the interior of the fjord than nearer the outer coast. Kaldhol thought these marine clays to represent the Yoldia-subsidence, but he himself pointed out the fact that *yoldia arctica* Gray was not found in these clays.

When, during the next stage, the Hornindalsvand was again filled with ice, this was pressed over from the main fjord, so that these clays were preserved near the upper end of the lake, yet under a cover of gravels deposited in an ice-dammed lake. This new advance of the ice into the Hornindalsvand left its marks in the damming up of the ice-lake and in destroying all marine terraces between the upper and lower end of the actual lake. No terminal moraines were formed during this second ice advance into the Hornindalsvand. The advance seems to have exhausted its force by filling the basin of the Hornindalsvand, where, however, a dead ice-cake seems to have lingered until the land had risen again high enough to prevent the sea from entering the lake-basin.

Real terminal moraines are only to be found at the mouth of the valleys leading down from the Aalfotbrae and Jostedalsbrae and entering the main fjord from the south. Their morainic material passes imperceptibly into marine stratified terraces. These terraces are still at altitudes corresponding to the maximum of the subsidence (180 feet in the west, 300 feet farther east). In the innermost recesses of the fjord they are even somewhat later than the maximum subsidence, very naturally, as here the ice advanced as far as the Hornindalsvand. For the terminal moraines in the middle part of the Nordfjord the depression of the snow-line amounted to some 350 metres—just as during the Daun stage in the Alps.

The same applies to the moraines in the valleys leading down from the Folgefonn. They, too, were formed during the maximum of the subsidence, for they pass quite gradually into marine terraces, which lie in just the same altitudes as the marine terraces in parts of the region already unglaciated, for instance, on the east side of the Sør fjord.

Scandinavia had, therefore, three distinct late-glacial stages: the stage of the Swedish lake-moraines is separated by the Yoldia-subsidence and re-elevation of the land from the South-Norwegian lake-moraines. During this second stage the glaciers advanced for a short time as far as the Raer, but a long pause occurred only much farther north at the lower end of the South-Norwegian lakes. This second stage is anterior to the maximum of the Portlandia subsidence, by which high-level beaches were cut into the moraines in southern Norway and at the Hornindalsvand. A third advance of the glaciers occurred after the sea had invaded the Hornindalsvand and that still during the maximum of the Portlandia-subsidence. The depression of the snow-line was found to be just the same as during the third Alpine stage.

East of the ice-shed in the Swedish lowlands the ice meanwhile retreated continuously from the terminal moraines of Central Sweden to the north. As far as we know, the coast of the Bottnic was but once submerged by the sea. After the Yoldia subsidence the land was uplifted in the Ancylus-uplift and only by the almost recent Litorina subsidence did the Ancylus lake again become a part of the sea. However, we have to bear in mind that the times of the Ancylus lake saw not only an uplift, but also a subsidence, though this did not affect the borderland between the sea and the lake. The spreading out of the middle Ancylus lake, the sedimentation of clays between sands in their wall and roof, clearly indicate this subsidence. It is also noteworthy that though the fauna in the Ancylus sediments is upon the whole an arctic and subarctic one, yet fossils have been found in the clays of the middle Ancylus lake, which indicate a more genial climate. The maximum of the Ancylus subsidence with its temperate fauna clearly corresponds with that part of the maximum of the Portlandia subsidence, when for a time the Hornindalsvand was free from ice.



That the Ancyclus subsidence represents a phenomenon which may well be compared to the Portlandia subsidence, will be seen from the conditions in Norrland. According to Högbom\* the uppermost marine beach in central Norrland lies some 860 feet above the actual sea-level, while farther inland its elevation diminishes. Though local deformations are by no means impossible, yet it seems more likely that this is due to the coast becoming free from ice only after the maximum of the subsidence, that is in analogy to the Norrfjord after the last late-Quaternary stage. So the uppermost beach of Norrland seems to correspond to the second large late-Quaternary subsidence, the Portlandia-Ancyclus one, and the "marin limit" of Munthe† to be due, not to the sea, but to the Ancyclus lake.

According to Hamberg‡ and Högbom the ice-dammed lakes of Norrland originated only after the last late-Quaternary stage during the time of the climatic optimum of the small Litorina-Tapes-subsidence. The climate then was more genial than now, and the present extension of the glaciers is the greatest since the time of the ice-lakes.

*Correlation of Scandinavian, Scottish and Alpine late-Quaternary.*

Scandinavian.		Scotland Alps.	
Glaciation.	Shore-line Oscillations.	*	
Retreat of glaciers, decay of the ice-sheet, ice-lakes of Norrland.	Recent uplift: Litorina-Tapes subsidence uplift.	Upper Forestian.	Forest beds: subrecent climatic optimum.
Terminal moraines in the valleys of the Folgefenn and of the south coast of the middle Norrfjord.	Maximum of the Portlandia-finiglacial-Ancyclus subsidence.		Peat bog, with some Arctic plants.
Hornindalsvand invaded by the sea.	Subsidence.		Daun stage.
South Norwegian lake-moraines (Raer Advance).	Maximum of the Yoldia-Isocardia and Ancyclus uplift.		Forest bed.
		Upper Peat bog Second Arctic bed Lower Peat bog	Gschnitz stage.
Kristianafjord and Central Swedish lowland ice-free.	Yoldia epiglacial subsidence.	Lower Forestian.	
Central Swedish lake-moraines.	High stand of the land.	First Arctic bed.	Bühl stage.

The Scottish beaches of 100 feet and 50 feet belong to two subsidences, separated by a period of uplift. They correspond probably to the Yoldia and Portlandia subsidence. Moraines are seen merging into the 100-feet beach and covering the

\* Högbom, "Quartärgeologische Studien im mittleren Norrland."—*Geol. Congress*, Guide No. 12, Stockholm, 1910.

† W. W. Munthe, "Studies in the late-Quaternary History of Southern Sweden."—*Geol. Congress*, Guide No. 25.

‡ A. Hamberg, "Geomorphologie und Quartärgeologie des Sarekgebirges."—*Geol. Congress*, Guide No. 10.



50-foot beach. We think them to represent the Bühl and Gschnitz stage. Then, of course, it would seem as if the shore-line oscillations in Scotland were not only of lesser amount than those of Scandinavia, but that, besides, uplift in one region meant subsidence in the other. The corry glaciers seem to belong to the Daun stage.

J. MOSCHELES.

## India: Sociology.

Hocart.

### Maternal Relations in Indian Ritual. By A. M. Hocart, M.A.

76

In two previous papers\* I traced certain ceremonial practices on both sides of the Indian Ocean, among the Fijians and Tongans, and among the South African Thonga, to the funeral principle that the mother's brother's son, the daughter's son, and more especially the sister's son consume the sacrifice in their capacity of representatives of the gods or the departed spirits. I now wish to produce evidence from North of the Indian Ocean.

The third book of the Laws of Manu specify in minute detail who should and who should not eat of the *Śrāddha*, that is the funeral rite and feast, the oblation to that class of spirits which is called in Sanscrit *pitarāḥ*, that is Fathers. The "Fathers" are the progenitors and paternal relations; they are departed spirits of some standing.† Manu leaves no doubt as to the function of those who thus partake of the sacrifice, for in verse 189 he tells us: "The Fathers stand by those invited Brahmans, and follow like the wind, and sit beside them as they sit." Even more definite are verses 237 and 238. "As long as the rice is hot, as long as they (the Brahmans) eat in silence, so long do the Fathers eat, and as long as the qualities of the food are not mentioned. What one eats with the head covered, what one eats facing south, what one eats with the shoes on, that the demons (*rakṣas*) eat." So also if any unfit person, such as a younger brother married before his elder brother, come to share the feast, whatever is eaten by them "that the demons eat" (v. 170).

The theory, then, is perfectly clear: persons must be selected to eat of the sacrifice who are fit to be the vehicles of the Fathers, because then the Fathers will accompany them and, through them, eat of the offered food. But sinners, deformed, and other undesirable persons will merely be the vehicles of demons.

The primary rule to observe in inviting to the funeral feast is that the guests should be learned and virtuous Brahmans; but, adds Manu, "The following subsidiary rule is recognised, which is always practised by the good: a man may feed his mother's father and his mother's brother, his sister's son, father-in-law, teacher, daughter's son, son-in-law, maternal relation, ‡ both the sacrificial priest and the institutor of the sacrifice" (v. 147f). Further on, in verse 213, Manu selects the daughter's son for special mention: "One should at a funeral feast strenuously feed the daughter's son, even though he be under a vow" (that is, still a youth). The paternal relations nowhere appear, save in one exception that proves the rule; for verse 220 lays down that if "his father be alive he should offer only to those before him, or feed his own father at the funeral feast as one of the Brahmans." In other words the father can partake not as a relation, but as a learned and virtuous Brahman; he comes in under the primary rule.

In conclusion, then, we may say that in India, too, the maternal relations consume the sacrifice as representatives of the gods or the fathers.

\* "Chieftainship and the Sister's Son in the Pacific." *Amer. Anthr.*, 1915, p. 614. "The Uterine Nephew." *MAN*, 1923, No. 4.

† Hopkins, "Epic Mythology" (*Grundriss der Indo-Arischen Philologie*), p. 29.

‡ *Bandhu* means kinsman in general but more particularly a maternal kinsman. It is obviously meant here in the restricted sense, or the enumeration is pointless. In v. 264 it is so used in opposition to *jñātī*, paternal relations.



It may be objected that, since the cross-cousin system of kinship is unknown in Northern India, we cannot compare North Indian ritual with Fijian customs involving the cross-cousin system. But the former existence of the cross-cousin system in Northern India is proved by Buddhist tradition, for a discussion of which see my paper on Buddha and Devadatta in the *Indian Antiquary* (1923, p. 267). The Sanskrit system is certainly not a cross-cousin system, but its terminology shows the influence of the cross-cousin system which still flourishes in Southern India\*. The inclusion of the father-in-law and the son-in-law among the partakers of the sacrifice thus offers no difficulty since in the cross-cousin system they are identical respectively with the mother's brother and the sister's son.

It is a curious feature of this ancient custom that the living maternal relations should impersonate the deceased paternal ancestors. No explanation is as yet possible, since we do not possess sufficient information about the religious doctrines involved in kinship systems.

A. M. HOCART.

### Assam : Technology.

Hutton.

**The Occurrence of the Blow-gun in Assam.** By J. H. Hutton, **77**  
D.Sc., C.I.E.

In view of the very frequent identity of culture between the Naga tribes and those of Indonesia, where the blow-gun occurs, the absence of any trace of it in the Naga Hills had for some time puzzled me. Inquiries from various tribes by both Mr. Mills and myself gave only negative results, and, indeed, it was difficult to see how so striking and effective a weapon could exist and nothing be known about it.



FIG. 1.

KUKI USING BLOW-GUN.

When at last (August, 1923) I found it among the Thado Kukis, the reason why it had not been heard of before was obvious. It exists as a toy, or little more, and is principally used, as I think the bow is in Polynesia, for shooting rats. I do not suggest, however, that the Thado blow-gun is a degenerate implement. On the contrary, I am inclined to regard it as more likely to be the original form which has never developed, and is, perhaps, comparable to the reed toy in which Whiffen† supposes the South American blow-gun to have originated. A similar toy is also used in the Philippines,‡ while the Karens, who are clearly relatives of the Nagas, use a genuine blow-gun.¶

The Thado blow-pipe consists of a single internode of simple bamboo cut off a little closer to the upper node at the muzzle end than it is to the lower node for the breech, in order to give it a "choke" bore. Two species of bamboo are used, both providing small

gauge tubes with longer internodes than other bamboos of the locality, though even so the maximum length seems to be little over two feet. As this gives an effective range of about 20 feet only, it is obvious that, so long as the

\* Cp. the articles *māturbhṛaty* and *matulā* in MacDonell and Keith's Vedic Index.

† "The North-West Amazons," p. 108.

‡ Cole, "Wild Tribes of Davao District," 73; "The Tinguian," 274.

¶ Marshall, "The Karen People of Burma," 96.



development of the weapon is limited by the use of this sort of bamboo, it must remain of small importance.\*

To the unimportance of the weapon is doubtless due the fact that poison is not used, and is said never to have been used with the darts, for arrow poison (*thal-an*), though apparently always a valuable commodity, was certainly known to and used by the Thado, and in some localities is possibly still so used, for in 1917 to 1919 I obtained many ancient Thado arrows|| with the poison still adhering to the heads, though the source of it is no longer known to any Thados with whom I am in touch. Probably it was aconite, which I have found growing locally. Anyway, the Thados I have asked say that they have never heard of the darts ever having been said to have been poisoned at any time.

These darts are of several patterns. The simplest is a mere bamboo splinter, with a butt made of leaf tightly wrapped round the bamboo into a conical plug, with a slightly hollowed base which fits the tube closely enough to prevent windage. Another form is made of part of a porcupine's quill, carrying a little above its butt a tightly packed oval plug of cotton bound with thread, through the middle of which the quill passes. A third pattern, and probably the most effective of the three, consists of a bamboo splinter, again tipped with a short piece of umbrella wire, flattened and sharpened to a lozenge-shaped point, which is lashed into the bamboo with thread; the butt is furnished with an oval plug like that on the quill, and a little forward of it the bamboo stem is split for an inch or two and a feather inserted, the stem being bound with thread above and below the feather.

At a short range these blow-guns can be used with accuracy and force, the dart sometimes transfixing the body of a rat as deep as it will go. A mere carry of perhaps 70 feet or more can be obtained, but accuracy and force of impact cannot be had at a range of more than 20 to 25 feet, I think. My informants, demonstrating with a two-foot pipe, said that the longer the tube, of course, the more effective the weapon; but that it was very difficult to get long internodes, as the bamboos did not grow them. In use the Thado blow-gun is held with both hands close together, and knuckles upwards and near the mouth. The tube is said to be sometimes—often, in fact—elaborately decorated, but the specimens I have seen were plain, except for the stripping of the outer surface of the bamboo from part of the tube. As in the Malay Peninsula (Skeat and Blagden, *Pagan Races of the Malay Peninsula*, I, 325), the value of a choke bore is recognised.

What one would like to know most is whether the Thado form is a degenerate of the Malay weapon, or the latter an improvement of an original of the Thado type. Possibly it may be inferred from the absence of any tradition of the use of poison that the Thado type is the original from which the more effective weapon was developed by the Sakai and other Malay Peninsula tribes, who were able to

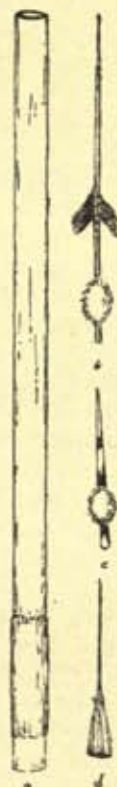


FIG. 2.

- a—Blow-gun;  
b—dart of bamboo, iron point, feathered shaft, wound cotton windage plug; c—dart of porcupine quill, cotton windage plug;  
d—bamboo dart, leaf-windage plug.  
Scale  $\frac{1}{2}$ .

\* It is possible that as a contributory factor the bow may have been better suited to the Thados' environment, as the blow-gun to that of Borneo (v. Hose and McDougall, "Pagan Tribes of Borneo," I, 175, n), where, *per contra*, the bow is used as a toy (*loc. cit.*, and I, 46).

† For use both with the bow and with the gun for elephant-hunting. No windage plug is used on arrows shot out of guns by Thados or by Angami Nagas.



avail themselves of the long internodes of *bambusa longinodis*. Had the Thados ever known the fully-developed Malay blow-gun, with its long internodes forming a composite tube, a failure to obtain the right sort of bamboo would perhaps have led to a wooden substitute, as the Bornean blow-gun obviously must be, or to a composite bamboo implement on a smaller scale.

The windage-plugs of the Thado darts raise a minor point. It has been observed (*vide* Skeat and Blagden, *op. cit.* I, 258) that cotton is used for the butts of blow-gun darts in South America, (as it is for the Davao toy in the Philippines) but not in the area of the Asiatic form of the genuine weapon. It is used for the Thado toy dart, though it is hardly necessary to point out that the area from which this comes is well outside that shown by Skeat and Blagden (*op. cit.* I, 261) as covering the distribution of the Asiatic blow-pipe. This map shows the distribution of the blow-gun and poisoned dart as roughly conterminous with the use of *ipoh* poison (*antiaris toxicaria* and *strychnos tieute*), the bow being the weapon used in the adjoining area to the north-east, where the arrow-poison used is *aconitum ferox*. It is, perhaps, worth noting that, though the arrow-poison used in the Naga Hills is probably, but by no means certainly, aconite,\* the story of the Upas tree† is found in full blast among the Chang Nagas, who get their poison from their neighbours to the east, and who prescribe as an antidote the ordure of dogs (*cf.* Marco Polo, II, xlix.) and of pigs as "the nastiest thing known," though the similar one said to be prescribed by the Dyak would seem to be, if possible, one worse (*cf.* also the *Journal of Friar Odoric*, ch. V).‡

It may be added that the Thados probably form part of the second wave of Kuki immigration which seems to have come down the Chindwin from the direction of China and then returned north up the ranges between Burma and Assam (*v.* Fryer, "On the Khyeng People of the Sandoway District, Arakan," *J.A.S.B.*, 1875, and Lewin, "Wild Races of South-Eastern India," p. 22). The Thados, like most Nagas, have obviously somewhere absorbed some negroid strain, more noticeable among Thados in the women, perhaps, than in the men, and are still living under more or less migratory conditions. They differ from the permanently settled Nagas, among whom they are scattered, physically, in their generally fairer skin, shorter stature, and very much stockier build; in polity, in having an elaborate system of chiefs, each owing a theoretical allegiance to the representative of the senior branch from which he sprang, up to the lineal representative of the original ancestor of the tribe; in culture, in being much more backward agriculturally than most Nagas, but, conversely, more advanced in the domestic arts—weaving, metal-working, etc., and in folklore they offer a marked contrast to Nagas in possessing all the paraphernalia of the "Arabian Nights"—magic rings controlling a servant spirit, magic dishes that provide a meal at order, magic gifts that become a lake, a mountain, a belt of fire in the path of the pursuing ogre, magicians that keep external souls in chickens beyond the confines of the natural world, which have to be caught and squeezed to death to rescue captured maidens, all themes of which Naga legend appears to know nothing at all.

J. H. HUTTON.

\* The Indian Museum tested some for me once, and reported that the tests did not confirm the supposition that the poison was aconite, though the amount I had sent was not enough to make quite sure that it was not. One assumes that it is aconite, as that poison is the one used by the Assam tribes on the north bank of the Brahmaputra, and apparently is used by some Burma tribes as well.

† *Cf.* Skeat and Blagden, *op. cit.*, II, 315. The same authors suggest (I, 264) that the fable originated in the *rengas* tree, of which, judging by the description given, I have not heard in the Naga Hills.

‡ Pliny (*Nat. Hist.*, XXIX, iv.) recommends cattle dung as a cure for *serpentium ictus*.



## Stonehenge.

Petrie.

**Stonehenge—The Heel Stone.** *By Sir Flinders Petrie, F.R.S.*

78

If the first appearance of the sun is in the axis of Stonehenge, its complete appearance must be east of that. I had long ago thought that the Heel stone marked the complete view of the disc, and on rough calculation it seems that the complete sunrise is 49' east of the first glance. The Heel stone viewed from the trilithon is stated to be 72' east. But the view might be taken from further back along the axis. Though the original width of the trilithon gap is uncertain, yet the entrance gives a limit, and the line most parallel to the axis from entrance to the peak of the Heel is about 60' from axis. Thus it might be possible for the axis to be at the first gleam, and the Heel at the full disc, with a discrepancy of 12'. This brings it within the small amounts that need to be verified by observation on the spot. Was the peak or the centre of the Heel stone intended as a mark?

Yet, after all, has anyone verified that there was not a fellow to the Heel-stone, making a pair symmetric to the axis?

FLINDERS PETRIE.

## Africa West: Medicine.

Migeod.

**Smoking Over the Fire.** *By F. W. H. Migeod.*

79

There is a plant in the West African forest that is used in a similar way to that recorded by Sir Everard im Thurn in MAN, 1924, 54. Its botanic name I cannot supply, but in the Mende language it is called Puta-pute. An alternative name, Kule-la, which is of doubtful accuracy and possibly misapplied, was also given me. A not very complete note on it which I made a number of years ago is as follows: Opposite leaves 19 by 4 inches, serrated edge; flowers small, blue, opposite, branching from a long head.

The person to be cured sits in the steam of the infusion to bring out the perspiration. It can also be used as a poultice.

The Mende were among the tribes which went largely as slaves to Guiana.

F. W. H. MIGEOD.

## Religion.

Rose.

**The Polite Plural.** *By H. J. Rose.*

80

The discussion opened by Mr. Hocart (MAN, 1924, 3, 62) and contributed to by Lord Raglan (*ibid.*, 24) is full of interest. As far as the Fijian evidence goes, Mr. Hocart's facts are doubtless perfectly correct, and his explanation is at least very plausible; but, as he asks for evidence from students of other regions, I wish to point out why I remain utterly unconvinced so far as the classical civilisations are concerned.

In the first place, we have no sufficient evidence that either the early Greeks or the early Italians (I do not include the Etruscans in the latter term) believed that their kings were divine in anything like the Frazerian sense. For Greece Mr. Hocart has himself quoted one of the strongest-looking pieces of evidence (MAN, 1924, 53), namely Homer, "Odyssey," XIX, 109, on which he comments excellently for the most part, and which (*o si sic omnes!*) he translates correctly, save that *θεοῦδῆς* is rather "godlike" than "godfearing." But, if we look at it a little more closely, we see that it merely means that the gods love a virtuous king and reward him with material prosperity. Hesiod ("Works and Days," 225 *sqq.*) has a closely parallel picture of the prosperity of a virtuous people; surely a whole city would not be inhabited by Frazerian kings? He also says (*ibid.*, 240) that one bad man (king or commoner) can ruin a city—this being the well-known idea that evil is contagious. Goodness has the same quality, though not so markedly. The other supposed testimonies to such a belief in Greece can similarly



be got rid of; most of them, and also those for Italy, which it would take too long to discuss here, simply mean that the king had sacerdotal functions as well as secular ones; a very different thing from being himself divine.

In the second place, granted that the near neighbours of Greece, the inhabitants of Asia Minor, the Balkan massif, Minoan Crete, and Egypt, had divine kings, as they, or some of them, almost certainly did have, Mr. Hocart very truly says that this need not produce the polite plural in their language. And, as a matter of fact, the bringing into the Greek and afterwards the Roman world of the notion of divine kingship did not bring with it the polite plural, in courtly or any other address. The Ptolemies, the Seleukidai, and other dynasties of Alexander's successors were commonly addressed as gods, but in the second person singular; the same applies to Julius Caesar and his successors.

Thirdly, we have a little evidence that a person inspired or possessed was addressed in the second person singular like anyone else. Thus, *Kassandra*, in the "Agamemnon" of Aeschylus (e.g., v. 1295), and the sibyl in the "Æneid" (e.g., *Æn.* VI, 117), are addressed as "thou," not "you," by the chorus and Æneas respectively; in the "Captives" of Plautus, Tyndarus says (v. 598) that Aristophontes is possessed (*laruæ stimulant uirum*), but speaks both to him (611) and of him (604) in the singular. When at last, about the late fourth century A.D., the polite plural does make its sporadic appearance in Greek and Latin, it connotes respect and nothing more; see, for instance, Ammianus Marcellinus, xxv, 5, 3, where an officer uses it in addressing his general, Sallustius. It still is by no means universal in Greek; so far as my small experience goes, an Athenian will say *καλημέρα σας*, "good-day to you," but a countryman, *καλημέρα σου*, "good-day to thee," without the smallest intention to be discourteous.

Finally, there exist phenomena in both classical languages, wholly unconnected with religion or magic or kingcraft, from which the polite plural may be thought to have been derived. I refer to the use of the plural for the singular in the first and third persons.\* To say "we" when you mean "I" in classical Greek (mostly Tragedy; see the examples, from Homer down, in Kühner-Gerth, "Gram. der griechischen Sprache," Vol. II, second ed., p. 371) and in classical Latin (see any large grammar, such as Kühner, Vol. II, par. 24) is to exclude the merely subjective from the reference; i.e., it means "I, as a representative of my class (people, profession, etc.)," "I, as I really am and as history will see me," or the like. Any adjective or other part of speech in agreement is regularly masculine, in Greek, even if a woman is speaking. In the third person a similar effect is produced; thus, in Euripides, "Andromache," 713, *τίκτοντας* means "a mother," considered simply *qua* mother, neglecting the fact that the particular person meant is Andromache. One might expect an occasional "you" to answer a "we" of the kind described; and that, I think, does happen now and then in late Greek. In Julian's "Cæsars," 331B, Alexander declares that he led his soldiers to victory on a certain occasion, and refers to himself as "we." "What?" answers Seilenos, "when *you* were being carried off the field almost dead?" (*γ' ἐφέρισθαι μικροῦ νεκροῖς*); though this may just possibly mean "thou and Peukestes," who was mentioned a little before.

It is hardly necessary to remind Mr. Hocart, who knows his classics, that, when several people are addressed, Latin and Greek often name one of them only, yet go on to use the second person plural; *uos, o Calliope, precor, adspirare canenti*, says Vergil, "do thou, Calliope, and thy sisters, inspire my song." This also might have its share in developing the polite plural. Incidentally, the form of courtly address which is most characteristic of late Latin, to say nothing of mediæval and

\* The "we" of the demoniac of Gadara, Mk. v. 10, and parallels, is spoken by one devil on behalf of himself and his fellows.



modern speech, is the third person ("your\* excellency," "your Beatitude," etc., which can be found abundantly in such works as Justinian's "Nouellae," in both languages). This is the counterpart of such phrases as *mediocritas nostra*, "my insignificant self," which can be found as early as the time of Tiberius.†; while *maiestas uestra* and the like are in Cicero‡, and mean no more than "this honourable House."

H. J. ROSE.

## REVIEWS.

## Psycho-Analysis.

Jones.

*Papers on Psycho-Analysis.* By Ernest Jones. Third edition. London. 1923. 81

The third edition of this invaluable work, although about the same size as the second, contains six new articles, room for these being obtained by eliminating five from the second edition. Actually, in its present form the volume contains forty papers and probably still constitutes, as it did a few years ago, the best textbook on psycho-analysis and the mental processes with which it is concerned in the English language. Naturally only parts of its contents have a direct bearing on anthropology, whether from the point of view of field work or of current controversy. On the other hand, there are few ideas in the book, which whether he agrees with them or not—and unless he has had some experience of the subject he will certainly find much to reject—the anthropologist will not be the more efficient for absorbing to the extent that they shall at least form strands in the fabric of the background against which he views and manipulates his technical experiences. But, apart from background there are, in the reviewer's opinion, five articles which are, anthropologically, of first-class importance. These are all in the first two sections, and in order of importance from the anthropological standpoint are:—

VII. The Unconscious and its Significance for Psychopathology.

III. Freud's Psychology.

IX. Freud's Theory of Dreams.

X. The Influence of Dreams on Waking Life.

VIII. The Theory of Symbolism.

The first of these, after alluding to some current connotations of the word "unconscious"—it has, of course, nothing to do with the result of injury or anaesthetics—points out that, in the sense used by Freud and accepted by psychoanalysts, the conception is neither philosophical nor mystic, but purely inductive and built up step by step, from the results given by a process of examination, which it is claimed, is as severely technical as any of the processes used in experimental medicine. The first result of such investigation is to show that the existence of the unconscious is essentially the result of "repression," the word being used in a special technical sense (explained in Paper III, "Freud's Psychology"), and that its content in great part consists of those processes in a general way to be termed "wishes," including instincts, which are incompatible with the conscious moral attitude of the personality, taking "moral" in its widest sense. It follows that the unconscious is "conative, instinctive, infantile, unreasoning and predominantly sexual." Allowing the word "sexual" that wide extension on current usage which psychoanalysts claim, i.e., to include a pre-genital stage, there is nothing to which anthropological teaching or experience will say nay, though the reviewer would note for consideration whether "unreasoning" is the right term

\* Or "thy," ἡ σὺ ἀγούρη, etc. Even this has its classical parallels, τὸ σὸν δέμας, "thy person," and the like. Cf. *bonitas tua* (Antony ap. Cicero, *ad Atticum*, XIV, 13A, 1).

† Velleius Paterculus, II, 111, 3. Ennius had already used *meum cor* for "I."

‡ See *post reditum ad Quirites* 4; *pro Sex. Roscio*, 54; *pro Rabirio*, 35.



to employ, and would at least suggest the possibility that the inchoate character of the unconscious, at least in part, *e.g.*, as delivered to the world during mania and in some dreams, may not be due to lack of reason, so much as to the false premises on which, to the observer, the processes of thought appear to be based.

Paper III, that on Freud's Psychology, seems to call for no particular remark, unless it be that here is a perfectly clear and easily accessible and authoritative statement, which might well be read by many who desire to discuss Freud and his theories.

The tenth paper, "The Influence of Dreams upon Waking Life," refers not only to those minor every-day experiences of moods of gaiety, depression or anxiety which, beginning at the moment of waking, last for hours, often through the day, and can sometimes be traced directly to a dream; but three instances are given in which behaviour was grossly determined by a preceding dream. Lack of space makes it impossible to quote even one of these, but they should be pondered by every field worker: they will help him to understand in savages the relatively common continuation in sleep of day-time moods, especially fear, determining not only dreams, but sometimes somnambulisms—which, of course, are accepted as actual events. Briefly, the reviewer's experience indicates that savages, even more than ourselves, confuse dreams and waking fears and desires; it is, indeed, probable that dances and details of ceremony may be invented in dreams, or at least in dream-like states, without any appreciation of this, even among peoples in whom there is no question of the discovery being attributed to the action of gods or spirits.

The eighth paper, "The Theory of Symbolism," certainly the most difficult in the book and the one which best exhibits the author's range of reading and powers of synthesis, will be the most interesting to anthropologists. Dr. Jones begins by pointing out that there are six attributes which the various ideas, objects and acts denoted by the word symbol, or symbolic, have in common. It is suggested that:—

" 1. A symbol is a representative or substitute of some other idea, from which in the context it derives a secondary significance not inherent in itself. . . .

" 2. It represents the primary element through having something in common with it. . . . The association may be an internal or an external one. An association, however, which is superficial to the reason may often be of significance in feeling, especially in the unconscious.

" 3. A symbol is characteristically sensorial and concrete, whereas the idea represented may be a *relatively* abstract and complex one. The symbol thus tends to be shorter and more condensed than the idea represented.

" 4. Symbolic modes of thought are the most primitive, both ontogenetically and phylogenetically, and represent a reversion to some simpler and earlier stage of mental development. They are, therefore, more often met with in conditions that favour such a reversion; for example, fatigue, drowsiness, bodily illness, neurosis and insanity, and, above all, in dreams, where conscious mental life is reduced almost to a minimum. . . .

" 5. In most uses of the word, a symbol is a manifest expression for an idea that is more or less hidden, secret or kept in reserve. . . .

" 6. Symbols . . . [are] made spontaneously, automatically, and, in the broad sense of the word, unconsciously. . . ."

But, although these six attributes have narrowed the field, they still do not define true symbolism, which the author confines to "one variety of the group of indirect representation to which attributes were attached above" The nature of this variety is then discussed, and the view emerges that, for Dr. Jones, the true "symbol" represents unconscious material, "the process of symbolisation is carried out unconsciously, and the individual is quite unaware of the meaning of the symbol he has employed." While these notes in no sense do justice



to the paper, it would take far too much space to follow Dr. Jones' development of the idea he puts forth. It may, however, be asked how far does the special significance he attaches to the term symbol help the anthropologist; the answer would seem to be somewhat to the effect that, while the whole article is most stimulating, full of fresh ideas, while old facts and beliefs are seen from new angles, the term symbol is so well-established that some other term had better be used in place of a word which already has so many recognised shades of meaning. Such a word is to hand in Mr. Flugel's suggestion that "cryptophor" (as opposed to metaphor) and "cryptophoric" be used for that form of indirect representation, to which (being completely unconscious) the author would confine the terms "symbol" and "symbolic."

Space permits only the shortest reference to one other paper, "The Phantasy of the Reversal of Generations." The article is but a sketch, yet it is most suggestive, and, as the author points out, it is obvious that it bears on the idea of the re-birth of ancestors. Another suggestion—it is no more—and the facts will not easily be brought together, may be made; has this phantasy played any part in the reciprocity of relationship terms and of social function between particular pairs or groups of relatives that is so widely spread? The mother's brother-sister's son relationship at once comes to mind; moreover, the mother's brother in many people takes that part in the life of a child which the father does among ourselves.

C. G. S.

#### Britain: Archæology.

Fox.

*The Archæology of the Cambridge Region. A topographical study of the Bronze, Early Iron, Roman and Anglo-Saxon Ages, with an introductory note on the Neolithic Age.* By Cyril Fox, Ph.D., F.S.A., Cambridge University Press, 1923. Pp. xxv + 360. 37 plates, 1 text figure, 9 text maps, and 5 maps in pocket. Price 31s. 6d. net.

82

This admirable archæological study of a limited region, unusually rich in evidences of past cultures, does great credit to its author, for it is by far the best of such local studies which has yet appeared. When every region in the British Isles has been similarly treated with equal thoroughness and critical discrimination, fewer problems concerning the pre-history of our islands will remain to perplex the anthropologist.

But it is by no means solely as a local study that the volume should be judged, for many of its conclusions have a wider application. The chief problem which Dr. Fox set out to solve was to test the assumption, frequently advanced during the last dozen years, that early settlements were always on open land and that dense woodland was quite uninhabited. The evidence he adduces shows that this assumption has been fully warranted, for he finds that, with the exception of a few small settlements during the Roman occupation, the woodlands were left severely alone until just before the Norman Conquest, when some slight attempts at clearing had been made.

He arrives, too, at another conclusion which is not equally in accordance with previously expressed views, for he finds that, throughout the periods with which he was dealing, the population lived exclusively in the lower lands near the water, though they sometimes buried their dead on higher ground. This conclusion may not, however, be of general application, for in the Cambridge region the lower lands were free from woodland, which is thickest on the higher ground. In other regions the position is reversed, and the open lands are at the higher altitudes. Similar studies of other regions are necessary before we can assume that the principles, found by Dr. Fox to be true for Cambridgeshire, can be assumed to be of general application.



A further interesting point which he has determined is that during the closing phases of the Early Iron Age the civilisation characteristic of the south-eastern counties, which is usually considered to be Belgic, reached as far as the Devil's Dyke, but no farther; beyond that was the territory of the Iceni, who were, he thinks, a pre-Belgic tribe. It is significant, too, though he does not mention it, that all the hill-top camps shown on his map are also south of this line. It would be interesting to know how far these cultures are coterminous elsewhere.

Dr. Fox is to be congratulated on having produced an exceedingly useful volume, in which he has made good use of the geographical method of mapping the sites of "finds" and early remains, with the excellent results which usually flow from such treatment.

HAROLD PEAKE.

## CORRESPONDENCE.

### Physical Anthropology.

Pitt-Rivers.

#### Sex Ratios.

*To the Editor of MAN.*

SIR,—In his letter on sex-ratio (*MAN*, 1924, 23) Dr. Parkes says there is evidence, but forbears to give any, for the assertion "that polygyny raises the proportion of males."

83

During the past three years I have been collecting data on sex-ratios in the Bismarck Archipelago, North America, Australia and elsewhere, but I have found no evidence to support such a statement; on the contrary, the influence of marriage system on sex-ratio, if any, appears to be in the opposite direction. That is to say, there is evidence that polygyny tends to disappear when the proportion of males to females increases, and is practised to the greatest extent where the surplusage of females is normally greatest. Polyandry, on the contrary, is correlated with an increasing surplusage of males. As I have pointed out in *MAN*, 1924, 65, a disturbance in the sex-ratio of adults in favour of males is correlated with a declining population. It is difficult to obtain comparative data of groups under the same living conditions which reflect variations in sex-ratios; it appears, however, that in communities where the sex-ratio and the marriage system vary among groups, the polygynous groups show the higher fertility and survival rates; it is significant, for instance, that among the North American Indians, the Navaho of Arizona, alone of the full-blood tribes, are increasing; they are less contaminated by European culture and living conditions than the other tribes, and they are the only tribes showing any considerable proportion of polygynous marriages. In 1910 there were 327 polygynous males in a population of 22,304; between the ages of 20-50, there were 98.2 males to 100 females, and 101.9 males to 100 females in the total population: relative to other Red Indian tribes, a low masculinity. In the full-blood polygynous marriages, the average number of children per mother was 4.7, as against a rate of 4.5 for the full-blood monogamous marriages. The survival rate was superior for the polygynous marriages, being 75 per cent. for the offspring of full-blood polygynous marriages against 69 per cent. for the offspring of monogamous marriages. The sterility rate was lower for polygynous wives than monogamous wives, being 6.2 per cent. as against 10.7 per cent. It must be remembered that miscegenation influences the sex-ratio and fertility. The rates vary between pure tribal and intertribal and between pure and mixed-blood marriages.

Melbourne,

10th March, 1924.

Yours faithfully,

GEORGE PITT-RIVERS.









FIG. 1.



FIG. 2.



FIG. 3.

AN AMERIND TYPE IN CHINA IN T'ANG TIMES.



## ORIGINAL ARTICLES.

With Plate H.

China: Ethnology.

Seligman.

**An Amerind Type in China in T'ang Times.** By Professor C. G. Seligman, F.R.S. With Plate H. 84

In a paper presented to the nineteenth International Congress of Americanists, Dr. Hrdlička, having reached the important conclusion of the fundamental unity of the American race, reproduces photographs which indicate that much of Asia is inhabited by peoples closely resembling the American Indian in physical characteristics. "If we turn to Asia . . . we see that large parts of Siberia and the eastern coast of the Continent, with much of Malaysia and even Polynesia, were and still are peopled by nations and tribes which differ more or less from one another, owing to admixture and local differentiation, but which on the whole are of a type that in most of its essentials is identical with, and in others close to that of, the Indian. This type persists to this day with particular purity in certain parts of the Philippine Islands (such as among the Igorrot), in Formosa, a large portion of Tibet, parts of Western China, in Mongolia, and over many parts of Siberia. It can frequently be met in China proper, in Korea, and in Japan. It is a type which is characterised by the same range of colour as well as quality and peculiarities of distribution of hair; by the same dark-brown eyes with yellowish conjunctiva and slight to moderate slant; by similar prominence of the cheek-bones and characteristics of the nose, as well as other parts of the face; by close resemblance in the rest of the body. . . . The physical resemblances between some members of the Asiatic groups and the average American Indians are such that if a member of one or the other were transplanted and his body and hair dressed like those of the tribe in the midst of which he was placed, he could not possibly be distinguished physically by any means at the command of the observer."\*

The object of this note is to point out that in China we have objects dating from the T'ang dynasty, i.e., early mediæval times, which so closely reproduce the facial characteristics of the American Indian, that the observer immediately thinks of the latter rather than of a Chinese.

The first specimen, which has been in my own possession for some fifteen years, is the whistle† reproduced, natural size, in figures 2 and 3 of Plate H. It is roughly spherical, consisting of a well-baked whiteish paste, the part representing the face and scalp being covered with a dull light green glaze, which at first sight suggested that the specimen dated from the Han period—an attribution which I was ready to accept until Mr. Hobson pointed out that the paste classed it as T'ang. For a long time I regarded this specimen as unique and as, therefore, possibly a freak, having little anthropological value; but lately I have been shown an almost identical specimen and have recognised the same type, but better represented, in the splendidly modelled figurine in the Eumorfopoulos collection, which, owing to its owner's courtesy, I am able to reproduce (Plate H, fig. 1). It is 31 centimetres high and covered with a green glaze of much the same quality as the whistle, and, like it, is identified as of T'ang age. It does not seem necessary to describe the face or rendering of the hair in either specimen; the photographs of both speak for themselves.

C. G. SELIGMAN.

\* Aleš Hrdlička, *Proceedings of the Nineteenth International Congress of Americanists*. "The Genesis of the American Indian," p. 565.

† The sphere is hollow and there is a hole in the vertex similar in size to those in the cheeks: blowing across this produces a whistling sound.



## Britain: Archæology.

Burkitt.

**A Danish Type of Axe in England.** By Miles C. Burkitt.

85

Attention has been drawn\* lately to the occurrence in England of a hitherto admittedly Danish type of Late Stone Age axe of rectangular section, dating from a time when, in all probability, metal was already in use in Britain. It has been claimed that such have been found *in situ*—the finder himself being known. Occasionally, no doubt, this type of axe may have been manufactured in England, or may have found its way over from Scandinavia in the course of commerce. Nevertheless, a word of warning is not out of place, for the unscrupulous are never absent, and by the time a specimen has passed through two or three hands the then vendor or giver states the locality he has been told in all good faith. Such a case occurred the other day, when a couple of implements were given as coming from Hertfordshire. The locality being queried and a previous owner challenged, a Thames Valley origin was admitted—as a matter of fact, both tools were the work of Flint Jack! But to return to the grey flint, rectangular sectioned, Danish Late Stone Age axes:



Fig. 1.—Extreme measurements  
 $4'' \cdot 4 \times 2'' \times 1'' \cdot 25$ .

Dr. Fox has brought to my notice the following reference from the Cambridge Antiquarian Society's Report (Feb. 28th, 1870) in a Report presented May 19th, 1873, at the 33rd Annual Meeting. "Mr. J. Carter exhibited a flint implement of bronze form imitated in flint, said by the well-known Cambridge dealer, from whom he purchased it, to have been found at Woodbridge in Suffolk. On investigation, however, it appeared that it was really Danish, and that large quantities were found in Denmark and imported into this country at a small price."

The smaller of the two specimens figured (both in the Cambridge Museum) is dated "Cambridge, July, 1871"—the date is significant in the light of the foregoing quotation. The larger specimen is labelled, in a different handwriting, "Yorkshire" and found its way to the Cambridge Museum in the Collection given by Mr. F. Ransom of Hitchin. Both are of grey flint and, as regards the "Yorkshire" specimen, there is no further information.

The occurrence of this late and special type in England is of great interest; but one feels that, in the light of the document just quoted, extra special reserve should be made before accepting an English locality as genuine.

M. C. BURKITT.



Fig. 2.—Extreme measurements  
 $5'' \cdot 2 \times 2'' \times 1''$ .

## Polynesia: Religion.

Ivens.

**The Polynesian Word *Atua*: its Derivation and Use.** By the Rev. W. G. Ivens, D.Litt.

86

## PART I.

All the translations of the Bible in Polynesia, except that of Rotuma, have used *atua* as the rendering for the word "God." The use of *atua* in this connection began presumably in Tahiti, where the first translation of the Bible was made into a Poly-

\* *Archæologia*, Vol. 72, 1921-2, p. 39.



nesian language. From Tahiti the employment of the word to connote the idea of "God" spread throughout Polynesia generally. In later years the word was adopted by some of the Presbyterian missionaries in the New Hebrides as the rendering for the word "God" among their Melanesian converts. Thus it is found in the translations in the languages of Tanna, Efate, Epi, Malekula, etc. In Polynesian colonies, like those of Futuna and Aniwa, it would naturally be employed as occurring in the languages, regard being had to the established use of the word in Polynesia. Apart from such Bible translations as those mentioned above, the word *atua* does not occur in Melanesia proper.

A paper read at the meeting in Melbourne of the Pan-Pacific Science Congress in 1923, by the Rev. Dr. Macdonald, had as its title "The Polynesian word for God, *Atua*." W. W. Gill, in "Myths and Legends from the South Pacific," has a note on the derivation of *atua* under the heading "The Polynesian word '*Atua*' or 'God.' " The present writer hopes to show in this paper that the association of the idea of godhead with the word *atua* is due rather to the following of the L.M.S. missionaries in Tahiti in their choice of it as a rendering for the word "God" than to any radical idea of "deity" possessed by the word itself.

### 1. The Derivation of *Atua*.

As to the derivation of *atua*, various etymologies have been proposed and some of them will be considered below. The present writer will endeavour to show a possible derivation from the common Oceanic word *tua* (*tuai*) meaning "old"—which is found generally in Borneo (*vide* S. H. Ray, "The Languages of Borneo," *Sarawak Museum Journal*)—with the addition of the prefixed *a*, the "Personal Article" as Dr. Codrington called it.

(a) *The connection of atua, matua, and tua*.—Dr. Macdonald in "Oceanic Languages," under the word *atua* suggests its connection with the adjectival form *matua*, which means elder, ripe, ancient, and which, with qualifying words in Polynesian languages, means parent, uncle, aunt, etc. Codrington and Palmer's "Mota Dictionary" both connect *matua* with *tua* (*tuai*), *ma* being a regular adjectival prefix in the Oceanic languages. The Malagasy dictionary gives *tua* as "old" and *matuatua* as "ghost," while *matua* is "eldest son." In the New Testament *matuatua* is the rendering for "spirit" in Mark vi., 49.

(b) The following table shows the occurrence in various Polynesian languages of *atua*, *matua*, *tua* (*tuai*).

Maori	-	-	<i>atua, matua, tua.</i>	Gilberts	-	<i>atua</i>	?	?
Samoan	-	-	<i>atua, matua, tuai.</i>	Niue	-	-	<i>atua, matua, tuai.</i>	
Tahitian	-	-	<i>atua, matua, tua,</i> <i>metua</i>	Tikopia	-	-	<i>atua, matua,</i>	?
				Mae	-	-	<i>etua,</i>	?
Tongan	-	-	<i>otua, motua, tuai.</i>	Nukapu	-	-	<i>atua,</i>	?
Hawaiian	-	-	<i>akua, makua, kua.</i>				<i>tuai.</i>	

(c) *Notes on the Table*.—With Maori *tua* (time past, adverbial use) we may compare Florida ("Solomons") *tua*: *mate tua* "dead finish," already dead.

Tahitian *tua* and Hawaiian *kua* are both spoken of as meaning "god." Ellis ("Polynesian Researches," vol. ii., p. 159) speaks of *tua* as being "celestial strata," "each stratum being the abode of spirits or gods." We conclude then that Tahitian *tua*, as well as *atua*, means "god." The word for "old" in Tahiti is *tahito*, Maori *tawhito*.

Tahitian *matua* appears in *ora matua tii*, which Ellis says were the spirits of departed relatives (*Tii* appears in Maori as *tiki*, a personification of primeval man). Ellis also says that the initial *a* of *atua* was often omitted in Tahitian in consequence of the preceding word ending in a vowel. While this is more or less of a common practice in Tikopian "*Tokai ngatua*," "food of *atua*," "*Kaura tatua*," "areca nut of the *atua*," yet it may be in Tahitian an instance of the use of *tua* as "god."



Dr. Rivers' "Melanesian Society" (vol. ii., p. 77) states that *tua* in the Shortlands means "grandfather" or "totem."

Andrew's "Hawaiian Dictionary" gives *kua* as "god"; *kua uka* inland gods, *kua tai* sea gods. The Hawaiian word for "old" is the same as the Tahitian with regular interchanges of *t* for *k*, *kahiko*.

Tahitian *metua* with qualifying words is used for "parent." Niue *tuai* is used both as an adjective meaning "old," and also as an adverb denoting past time: *ne fano tuai* (he) is quite gone; thus being correlated with Florida and Maori *tua*. Dr. Rivers gives *matua* in Tikopia as meaning "elder," and *atua* as "ancestor" or "totem" (op. cit., vol. i., p. 260).

(d) *Terms of relationship*.—Dr. Fox in "Social Organisation in San Cristoval" writes: "Words whose root is *tua* (*tuwa*), old, are used for relationship terms very widely: brother (if older), father, grandfather, and (in San Cristoval) ancestor. "Maori *tuakana*, Fiji *tuaka*, Mota *tuaga*, Wedua *tuana*, elder brother."

The examples show then that *atua*, *matua*, and *tua* are all used interchangeably with the meanings "ancestor," "ghost," "spirit," "god." In the light of the evidence under (d) of *tua* being a root used with the suffix *na* to denote terms of relationship we can assume that *tua* is the root of both *atua* and *matua*.

(e) The Malay word *tuan*.—The connection of *atua* and *matua* being assumed, one may perhaps hazard the suggestion that the Malay *tuan*, lord, master, is also connected with *tuan*, being in Malay a noun ending. Crawford in the "Malay Dictionary," under the word *tuhan*, which he renders "lord," "master," "God," writes: "There is no word in the native language (i.e., in Malay) for the deity: *tuhan* " was adopted by the disciples of Mohamedanism." The ordinary word for "master" in Malay is *tuan*, and this is the word which the Mohamadan missionaries adopted, inserting an *h* to denote the new idea of "God." One would naturally suppose that the choice of the word was owing to its association with the ancestor worship of the people.

WALTER IVENS.

(To be continued.)

## Africa, Central: Art.

Werner.

**Note on Drawings by a Native of Nyasaland.** By Miss A. Werner. 87

I have recently had a good deal of conversation with Ali bin Sadiki, a native of Kotakota, Nyasaland, who has for many years been employed as a fireman on British vessels. Though he left his country quite young (his story is that he accompanied his parents on a trading journey to Kilwa, where he was kidnapped by an Arab and subsequently rescued from a slave-dhow by a British gunboat) he still

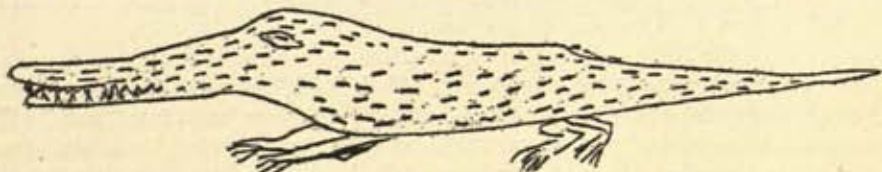


FIG. 1.

remembers his native language (Chinyanja), and has given some interesting information about his people's customs and beliefs. Much of this, however, has to be received with caution, as it appears to be mixed up with Muslim folklore. I had hoped to get from him some light on the extraordinary part played by the whale in the Nyanja *unyago* initiation ceremonies. I was disappointed in this, but the discussion had, incidentally, an interesting result. Wishing to discover if he really knew what a whale was like, I asked him to draw one. The result resembles a walrus more than

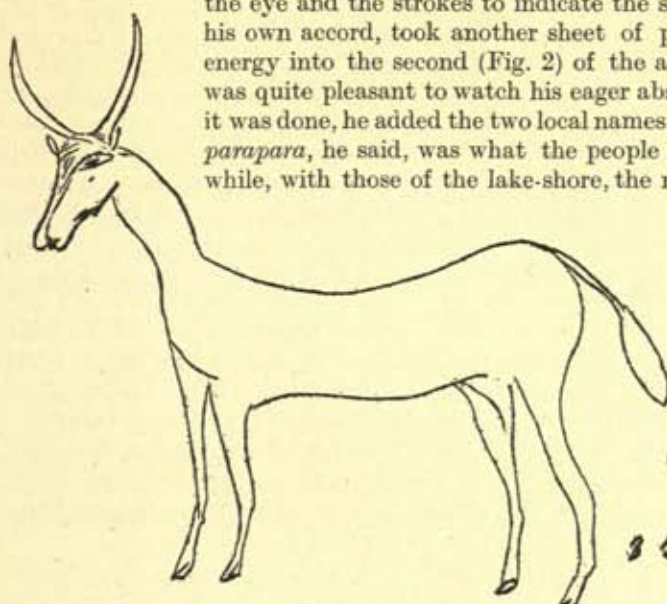


anything else (his seafaring experience has been wide and varied); but I was struck with his readiness in handling the pencil and suggested his drawing a crocodile, which he did without hesitation, tracing the outline first and then carefully inserting the eye and the strokes to indicate the scales (Fig. 1). He then, of his own accord, took another sheet of paper and threw his whole energy into the second (Fig. 2) of the accompanying drawings: it was quite pleasant to watch his eager absorption in his task. When it was done, he added the two local names of the antelope in question: *parapara*, he said, was what the people of the mountains called it, while, with those of the lake-shore, the name was *bawara* (*Mbawala*,

in the Shire Highlands, is, I have always understood, the bush buck).

The drawings, rough as they are, show a spirit and a minute observation

which, to some extent, recall the Bushman rock-paintings and are all



the more remarkable when it is remembered that Ali has probably not seen these animals since his childhood. It has repeatedly been pointed out that there is a strong probability of some Nyanja tribes—especially those west of the Shire—having incorporated a considerable amount of Bushman blood. If so, it is interesting to find the ancestral aptitude cropping out in this man who—though not wholly illiterate, since he can read and write to some extent—can have had no artistic training of any kind.

A. WERNER.

### Papua: Witchcraft.

Turner.

#### Malignant Witchcraft in Papua and the Use of Poisons therein.

88

By the Rev. R. Lister Turner.

"There is a strange method of magical attack used at Savu," writes Dr. Codrington in his book on the Melanesians, "and known at Florida, called *VELF*, 'a word which means a pinch. The man who has the secret of this takes in a bag upon his back the leaves and other things in which 'mana' (i.e., spiritual power) for this purpose resides, and seeks to find the man alone he goes to injure. When he finds him, he seizes him, bites his neck, stuffs the magic leaves down his throat, and knocks him on the head with an axe, but not so as to kill him. He then leaves the man, who goes home, states what has happened, and dies after two days. If the attack is made at night, the man cannot tell who his assailant was; but the 'vele' is used also in broad daylight, and the assailant does not conceal himself, but tells his name, and bids his victim make it known. As he goes home, the charm makes him forget it."

Now this is undoubtedly what is known in parts of the Central Division of the Territory of Papua as the *VADA*. This malignant witchcraft, it may be noted, is not practised by the coast natives, but all natives, both inland and on the littoral, are very much afraid of it; as well they may be, because mysterious deaths not infrequently occur amongst natives, which can only be put down to this kind of witchcraft.



Naturally there is a good deal of speculation amongst Papuans as to the exact mode of procedure in the VADA. The general idea seems to be that the victim is first of all knocked down with a club, and as he lies unconscious on the ground, certain poisonous plants are forced down his throat. This done, the magician sings magic formulæ over him, and gradually brings his victim back to consciousness again. The magician may leave him ere he has returned to consciousness, or wait, and later tell him to go home to his village, where he will die shortly. Natives assert that, although a man who has been thus attacked may have seen his assailant and recognised him, he never tells; that even if, an hour or two after the Vada had been committed, he were to meet the magician himself, he would not recognise him. Some say that the "muramura" (medicine) is not forced down the victim's throat, but into a cut made in his thigh; but that the cut is afterwards sewn up, and the magical formulæ chanted over the body cause the wound to close up so wonderfully as to leave no trace of even a scratch upon the man's skin.

Dr. Codrington believes that poisons were not used by Melanesians in the Vele until arsenic was introduced from Queensland, and the question we are considering is whether poisons are used in Papuan witchcraft.

Now, three things are said to be used in the "Vada," namely the "matoa," the "tua," and the "gavera," the first two mentioned being plants, and the third a kind of worm with yellow stripes. When I was at Oxford in 1910 lecturing on Papua, Mr. Balfour, the Curator of the Oxford University Museum, informed me that the scientific name of the "gavera" is "Peripatus."

The "Matoa" belongs to the Aroideae family of plants, and from J. D. Hooker's description of *Dracunculus* it would seem that the "matoa" is *Dracunculus*, or a very similar species. "The rhizome and leaves of Aroideae," says Dr. Hooker, "contain a very acrid juice, which may occasion serious accidents; *Lagenandra toxicaria*, quoted by Lindley, is considered a most violent poison; the stem and leaves of *Dieffenbachia Seguina* produce, when chewed, a violent inflammation of the mucous membrane, and a swelling of the tongue which renders it impossible to speak." In another place he says, "Some Aroideae exhale during flowering a repulsive odour; as, amongst others, *Dracunculus crinitus*, the cadaverous exhalation from which attracts flies, which descend to the bottom of the spathe where they are entangled in the long hairs."

The "tua," whose scientific name is *Derris uliginosa*, is much used by natives as a fish-poison, and is sometimes called the "Dynamite Plant."

I have not much knowledge of the "gavera," but some years ago a native brought to me his little boy, who had his tongue and tonsils badly inflamed, so much so that the father was very much afraid the boy would be suffocated. It appears that whilst the boy was asleep, a "gavera" crawled on to his face, and into his mouth. The boy put his teeth down on it, with the result stated: but he did not die, recovering, in fact, a few hours later.

From what has been said, it will be seen that the "tua," "matoa," and "gavera" are more or less poisonous. The spathe of the "matoa," however, is not poisonous, because Dr. Stockman, City Analyst of Glasgow, examined the spathe of one plant I sent him, but could find no traces of any poison. On the other hand, it is quite possible that the seeds of the "matoa" are poisonous, and it is said that the seeds are used by the "Vada" men. It may be noted that the natives eat the rhizome of the "matoa" roasted, but when preparing this for roasting, they take care to protect the hands with banana leaves, lest the juice get on their hands and burn them. Through ignorance a child will sometimes eat part of the rhizome of a "matoa," but he will very soon stop, for it quickly burns his lips, mouth and throat.

A very little knowledge of Papuan Flora will make one realise that there are quite a number of poisonous plants in Papua, and it is unlikely that the Papuan is



ignorant of the fact. He very often labels as poison the fruit of a plant which he himself does not eat, but it does not therefore follow that it is poisonous. For example, when I was once about to eat a wild raspberry, the natives said, "Don't eat that, it is poisonous." The fact, however, that he does fear to eat strange fruits, lest they be poisonous, would seem to prove that he does know that some at least are poisonous. And as the very success of the "Vada" depends largely on secrecy, the probabilities are that poisons are used. Not that death is always due to poison administered, for sometimes the victim may be hit on the head too forcibly ever to come back to consciousness again. And further, in some cases it does not appear to be true that poisons are used at all, as the following case will show. The story was given to me by a native, who is now an old man, and was a boy when he saw the man attacked by the Vada men.

A woman was used as a decoy, and she led the man to a spot where apparently the Vada men could crawl up unseen, and club him ere he was aware of their presence. As the man and woman were seated there, the Vada men came, knocked the sitting man on the head, and as he lay unconscious, they pummelled his abdomen with cobblestones. No poisons were used in this case at all, but evidently the object was to cause internal injury, from which the victim would die in a few days. I may add, a few years ago I heard that the post mortem on one victim of the Vada men held by the Government Medical Officer at Port Moresby resulted in a verdict of "Death from a broken spleen."

R. LISTER TURNER.

### India, South: Ethnography.

Powell.

**Notes from the Tinnevely District, South India.** Communicated by **89**  
the Rev. J. H. Powell.

The following notes of customs were given me a few years ago by a missionary of the Tinnevely District. They had been observed by her personally:—

Patients in one of the Mission hospitals in the Tinnevely district of S. India, when *in extremis*, were frequently given "worm soup" (made from earthworms) by the Christian dispenser.

A woman suffering from a bite from her daughter in convulsions, applied to the bitten finger tooth-paste made from old extracted teeth found near the hospital. These were ground up to form the paste.

A mother gave her sickly baby first pepper, then a boiled rat, afterwards rubbing it with powdered elephant bones.

To sneeze once is unlucky; if twice, it doesn't matter.

A son murdered his own father with the father's consent in order that their enemy should be charged with the crime.

A goddess was given to the Mission Station by some Hindu converts. It was made of rag, with one baby in the mouth, another under her arm, and another under her feet.

Large earthenware pots found on the sandy desert in the neighbourhood are thought to have been used for burying people in.

A man makes an image of his enemy, using hair cuttings, nail parings and earth from the enemy's footprints. The image is put in an unburnt pot and buried on the threshold of a temple. If the man does not find it he will die.

A kind of ink is made from various objectionable things, including bones from the head of a first-born male child. A person smearing this on the palm of the hand and gazing into it can answer any question asked. Even in Christian villages if a male baby dies it is buried in the house by the mother's bed, not in the cemetery lest the head should be used for this purpose.

J. H. POWELL.



Sudan: Technology.

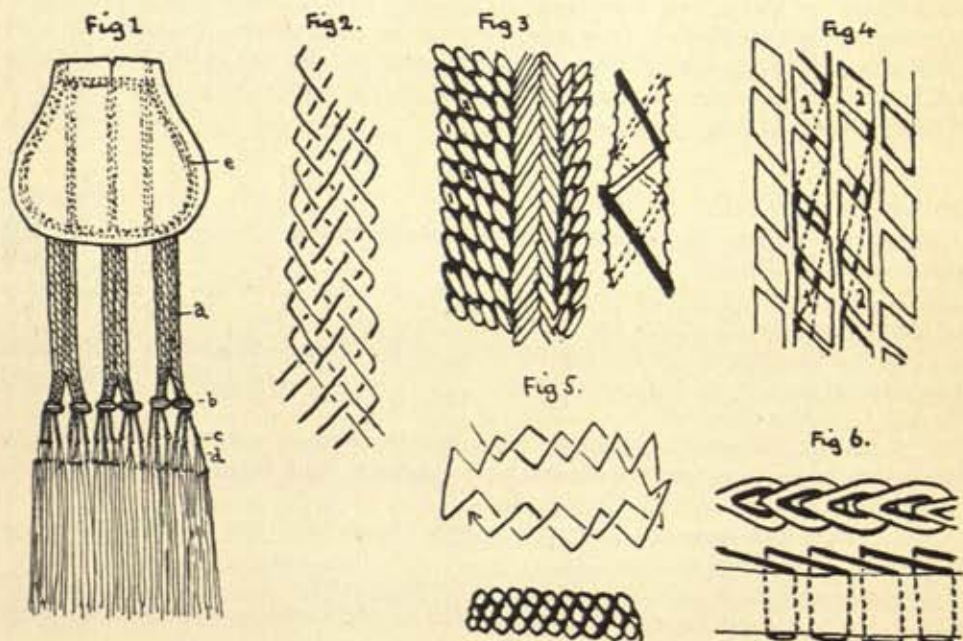
Thomas.

**Description of, and Remarks upon the Technique of a Leather Pillow Bag of the Baqqara, in the Museum of the Royal Geographical Society of Egypt, Cairo.\*** By E. S. Thomas. 90

This object is stated on good authority to be a pillow bag; padded with softer (sometimes scented) grass. Its maximum dimensions are only 28 by 27 cm. It is made of good soft dark brown leather. As shown in Fig. 1, it has three long webbed leather tassels (6½ cm. broad) on each side, which bifurcate at 16 cm. Each branch terminates in a band (b) of leather lace, tightly twined zigzagwise (Fig. 5).

From these bobs emerge three narrow webbed branches, each ending in a knot of the same twined technique as (b). From these knots depend three, or four, strings of twined lace ending in long leather strands which evidently form the core of the strings (d).

The technique of the webbing is shown in Fig. 2: some twelve or more wet laces are taken and plaited upon themselves back and fore: two over and two



under and *vice versa*. The webbing is, however, pulled and stretched in such a way, during construction, that the technique is completely masked; the appearance of the web being as shown in Fig. 3 (diagrammatically in Fig. 4). Consecutive surface elements of a single strand are numbered in the diagrams, and it will be seen that they lie in a vertical line, the intermediate portion of the lace being pulled out to a remarkable degree. Each web is double: being sewn up the middle, as shown in Fig. 3, as far as the bifurcation.

This kind of plaiting (two over, two under) is familiar in basketry elsewhere (Ancient Egyptian, Somali, Fazogli) and does not call for further comment.

The surface of the bag itself (Fig. 1(e)) is ornamented on each side with a triple band of braiding: round the edge, across the margin of the mouth, and in three bands down the middle. It is sufficiently described as "slit looping"† and the

\* By permission of the Royal Geographical Society of Egypt.

† It is probably done very rapidly (in the case of wide strip) with a broad-pointed needle.



manner of it is shown in Fig. 6. It is very beautifully and artistically carried out on this bag, as indeed is the whole construction; the evenness and tightness of the webbing is very noteworthy.

This technique is of some interest. It is used by the Somali,\* and in cane, by the Azande, who employ it as a binding to hold the cane turns tightly against the bent rattan edging of their wicker shields; a line of looping running all round on the back of the shield close under the rattan border.

Its employment on the Upper Welle is mentioned by Dr. Maes ("Congo," April, 1921, p. 552) as a binding to the Sanza "piano keys."†

It is also known as a binding in basketry to the Ancient Egyptians, as evidenced by lines of it running along the lid of a large oval basket in the Cairo Museum, and down the soles of a fragment of a beautifully made thick sandal of palm leaf with basketry edging in the R.G.S. of Egypt's Museum. The sandal is from Aswan and is probably very late. The basket is not dated, and is probably fairly late.

E. S. THOMAS.

## REVIEWS.

### Archæology, Prehistoric.

Bury, Cook, Adcock.

*The Cambridge Ancient History. Volume I, Egypt and Babylonia to 1580 B.C.* Edited by J. B. Bury, M.A., F.B.A., S. A. Cook, Litt.D., F. E. Adcock, M.A. Cambridge: at the University Press. 1923. Pp. xxii × 704, 5 tables, 12 maps, and plan of Babylon. 35s. net. **91**

*Chapter I.—Primitive Man in Geological Time.* Pp. 56, 2 maps; *Chapter II.—Neolithic and Bronze Age Cultures.* Pp. 59, 4 maps, 1 table. By J. L. Myres, O.B.E., M.A., D.Sc., F.S.A., Wykeham Professor of Ancient History, Oxford.

To summarise the history of human civilisation from its dawn until the appearance of weapons of iron is no light task; to accomplish it in 111 pages would have seemed impossible had not Professor Myres produced the chapters under review. Nor does the author ignore humble or even doubtful beginnings, for he starts his inquiry long before man could possibly have appeared upon the scene, and devotes 18 pages to the history of the land masses of the world from Jurassic to Pliocene times and two more to a general discussion of the Glacial Crisis. Then follow ten more pages on "The principal human races," in which he offers suggestions as to the centres of origin and the general lines of movement of the Mongol, Negro and white races. In these he has put forward a novel view that the "absence of face-hair, the short concave nose with spread nostrils and peculiarly infantile lips, the wide flat face and obliquely set eyes, find explanation if we suppose that for long this [mare's] milk was absorbed direct from the udder": a view which, in spite of its ingenuity, will probably fail to receive general acceptance. He is inclined, as others have done, to consider the Grimaldi race as an offshoot of the negro, though, except for the prognathous jaw, there is little resemblance between the two types.

It is on page 31, with the section on "Palæolithic Man in the East," that the real history of man begins. For this period our author has based his chronology on the pluvial periods of Egypt, which he seems to have derived from the clear exposition of these phases by Professor Breasted rather than from the original paper of Blanckenhorn. The American Egyptologist, in his pleasant and lucid

\* The very delicate overlay of the leather open-worked band about the Somali quiver described in MAN (22.12.106) is, doubtless of the same running technique, and not made, as there described, of separate small interlocking sprigs.

† "The B.M. Handbook to the Ethnol. Collections," p. 322, Fig. 210, shows a Babangi "piano" with the keys apparently bound in a similar manner, but it may be ordinary binding, which simulates it very closely.



paper, has made the hypothesis appear far more convincing than one would imagine it to be solely from the perusal of the "Geschichte des Nil-Stroms." Perhaps it would have been clearer if fuller use had been made of the work of Penck and Brückner, whose data seem more reliable, and it is strange that no reference has been made to the divisions of the Pleistocene advocated by Depéret and Lamothe. The result of this dependence upon Blanckenhorn's hypothesis is to place both Chellean and Acheulean cultures in the Mindel-Riss phase and the Mousterian during the third glaciation, which seems contrary to the latest evidence available, such as that from Cotencher, not to speak of Obermaier's work on the Garonne terraces. It is also strange to dismiss the Würm glaciation as "a comparatively small affair," when Continental geologists are beginning to believe it to be one of the greatest. Professor Myres seems to have been unduly influenced by the paper by Fairfield Osborn and Chester Reeds on "Old and New Standards of Pleistocene Division," for he appears, at one time, to have held the more generally accepted view that the Mousterian straddled the Würm, and thus he has shown it in the admirable chart at the end of the volume. It seems likely that the true interpretation of the Egyptian evidence is that the first three pluvial periods noted by Blanckenhorn are to be equated with the last three glaciations of Penck and Brückner, while the last is the equivalent of the Bühl advance. A novel view is put forward to account for the much-disputed origin of the Campignian culture, namely, that it is of African, presumably of Capsian, origin; if so, it is surprising that it is not more closely linked with Tardenoisian, the Capsian affinities of which are better attested.

In the second chapter our author has attempted to bring order out of the chaos of information which we possess relating to the Neolithic Age, and, after a preliminary discussion on agriculture and pottery, he has begun, very properly, with an account of the intrusion from the east of the successive Alpine populations, with their polished stone implements, agriculture and lake-dwellings. In this he has used with advantage a number of suggestive ideas which he had previously put forward in short papers. He has, however, made no attempt to define the various stages of this culture, or to make use of the classification into periods set forth by Ischer in the *Anzeiger für Schweizerische Altertumskunde* for 1919. His account of Danubian culture and *Band-keramik* is all too short, but he deals more fully with the Tripolje culture, though he does not sufficiently emphasise that the region in which this is found is clearly divisible into three parts. Like many other authorities he is inclined to treat this ware as related to those found at Anau and Susa; on this point many will be found to differ from him, as also on the extremely remote dates claimed by their discoverers for the earlier deposits on the two Asiatic sites. In dealing with the cultures of the Iberian peninsula, megalithic and bell-beaker respectively, he has followed closely on the suggestions made by Leeds. He seems hardly to realise how closely bell-beaker forms are associated with the earliest polygonal type of dolmen both in Brittany and Guernsey, and makes the surprising statement that beakers of the Spanish type reached Ireland. The treatment of the early metal age is, unfortunately, short and does scant justice to so important a stage of civilisation, while the final section on the Hallstatt culture is but an introduction to a subject which he hints will be more fully dealt with in the second volume.

Such, briefly, are the outlines of the story which Myres has set out to tell, and it has been brilliantly told. All through he has been writing with his eyes on the men and their environment, and especially on environmental control. He writes not only as Archæologist but as Anthropologist, Geologist and Geographer also—especially as Geographer. To deal with so much material in so small a compass has needed compression almost unprecedented even in the work of such a master of *précis*, and this has made these chapters difficult reading, even for one well acquainted with the majority of the facts, and much must be well-nigh beyond the



comprehension of the layman. The latter, however, is probably less interested in the details than in the general impression, and there is little doubt that, though the details will in many cases require modification as fresh discoveries are made, the atmosphere is likely to remain substantially as Myres has painted it.

It is unfortunate that the editors of the series, which sets out to describe the history of mankind from the very beginning, should have allotted but two chapters to this very long and important series of periods. Historians, however, have always had scant respect for times prior to the appearance of written records, and we must, therefore, take it as a sign of grace that even these two chapters have been inserted. They will, at any rate, show that the times were not so blank as historians have hitherto imagined.

It only remains to congratulate Professor Myres on an epoch-making contribution to the study of early man, which, though in detail it will doubtless in time be superseded, will always remain a notable landmark in the history of that study.

H. J. E. P.

### Africa, East: Ethnography.

Dundas.

*Kilimanjaro and its People.* By the Hon. Charles Dundas, O.B.E. (Senior Comr., Tanganyika Terr.). London: H. F. & G. Witherby. 1924. Pp. 349. Price 18s. **92**

The author of this book is well known as the contributor of several excellent papers to the *Journal of the Institute*. His latest effort is a work which should attract the serious attention of students of African ethnology; in some ways it reminds one of Junod's classic, "The History of a South African Tribe," but does not cover quite such an exhaustive field. It commences with a well-written account of the mountain which the general reader will regret was not further amplified, for, in spite of the fine work of the German explorers, particularly Hans Meyer, much more remains to be learnt about its structure, physiography and meteorology.

The progressive decrease of the ice cap during the last thirty years is a remarkable fact when one realises that the rainfall records from the coast stations on approximately the same latitude show no sign of a decrease in precipitation. The absence on Kilimanjaro of the bamboo belt above the high forest zone, which is such a marked characteristic on Kenya, the Aberdare chain and other high mountains a comparatively short distance to the north, is difficult to understand. These problems will, it is feared, not be fully cleared up until it is possible to establish a high altitude observatory on the mountain.

The main portion of the work is devoted to a sociological study of the inhabitants of the lower slopes of the mountain. A considerable amount of space is devoted to the past history of the Chagga tribe, and there must be few areas in Africa where such a wealth of detail of the happenings of the last hundred years or so has been preserved in native tradition. One wishes that it had been possible to obtain more information about the early inhabitants of the mountain, the Wa Konyingo; there appears to be some evidence that these aborigines belonged to a stone age period, for we find the Chagga people using a perforated stone identical with the Bushman—"Kwe" as a cursing stone—and it is well known how relics of a former age are often believed to possess a magical value.

A remarkable feature of the Chagga tribe of to-day is the fact that it is derived from immigrants from no less than eight tribes and from at least three racial stocks. Yet we find all the heterogeneous constituents settled down into a more or less homogeneous whole, with a common language and customs which are, generally speaking, fairly uniform. We are indebted to Mr. Dundas for so clearly tracing the steps by which this came about, and the evolution of chieftainship under adverse social conditions is an interesting study in the development of



human society. It should be a lesson to students in other parts of Africa who may be inclined to take a tribe and treat it as a separate entity which has so existed from the mists of time. The same process must have occurred in many areas, and this concrete example must instil caution against the acceptance of either language or physical characteristics as proofs of racial origin.

The intermixture of racial characteristics in the case of the Chagga appears to have a beneficial result, for the product is undoubtedly a virile native type, exhibiting greater initiative than any of the tribes from which its ancestors were derived. The healthy and fertile nature of their habitat may, of course, have had some effect. Naturally, we find many customs in vogue among the Chagga which remind us of other tribes; among them may be mentioned the "dying curse," the circumcision "ages" or "*rika*," undoubtedly an adoption from Masai customs. The initiative ceremonies called *ngasi* by the Chagga are also widespread among the Bantu-speaking tribes of Africa. On the whole, it is interesting to note that law and custom of Bantu origin seems to dominate the Chagga social organisation, and so-called Hamitic culture from the Masai element seems to have found slight favour. Some of the proverbs quoted are of interest, and afford an insight into the native methods of thought.

As the author so aptly remarks: "It is the history of an obscure people; the events are unimportant to the world and the actors insignificant as human figures. Yet the story has its interest, I think. It is in miniature much as the history of mankind—a long tale of struggles, failures, tyrannies, sufferings and cruelty, but also of achievements, progress not devoid either of noble incidents, sacrifices and generousities."

"A history of primitive England might run much the same course, and we should peruse it with interest. . . . And so I may hope that this chronicle will be read in the light of a forgotten stage of human history, and be found of interest as such."

The book is well produced and the photos are good. It may be summed up as an excellent example of the unostentatious work of research into African peoples which is being done by many of our civil servants in the African dependencies, their research being mainly induced by sympathy with the people they govern.

C. W. H.

#### France: Palæolithic Art.

Capitan Bouyssonie.

*Publications de l'Institut International d'Anthropologie, No. 1. Un Atelier d'Art préhistorique. Limeuil: son gisement à gravures sur pierres de l'âge du renne. Par le Docteur L. Capitan et l'Abbé Jean Bouyssonie. Paris: Librairie Emile Nourry, 62, Rue des Ecoles. 1924.*

93

Limeuil is situated on the bluff overlooking the point where the River Vézère falls into the Dordogne: it clearly must have been a very "eligible site" in prehistoric times.

The above monograph, comprising some 41 pages of text and 49 plates, describes the diggings and the objects found there. The age of the deposit is Magdalenian and, judging from the harpoons that have come to light, quite late Magdalenian (Magd. 6).

The work opens with a description of the site and a history of the diggings, followed by a list of the fauna whose bones have been found. Among the latter was a fragment of a human skull, but this was of no particular interest. Next comes an account of a stone and bone industry, illustrated with figures. The industry includes scrapers, awls, burins (among these the parrot-beak), harpoons, a *bâton de commandement*, etc., etc. Engravings occur on many of the bone implements.



The most important find, however, is of a number of engravings on fine-grained limestone pebbles—so numerous are they that the suggestion of a prehistoric school of art at Limeuil has been put forward by the authors. The engravings themselves depict reindeer, ibex, horse, ox, bear, etc. The style of art is no longer the best technique characteristic of Magdalenian 5, and already shows a certain lack of freshness and vigour typical of the end of Magdalenian times. The plates illustrating the engraved pebbles comprise both line drawings of the figures and photographs of the actual pebbles.

The whole forms a volume that all prehistorians interested in Palæolithic art should acquire and makes an important addition to the gallery of prehistoric drawings we possess.

M. C. BURKITT.

### Britain: Archæology.

Cunnington.

*The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire.*

By M. E. Cunnington. Devizes: Geo. Simpson & Co. 30s.

94

The excavations carried out by Mr. and Mrs. Cunnington in a field close to All Cannings Cross Farm, six miles east of Devizes, in Wiltshire, are well known to students of the Early Iron Age in this country. Attention was drawn to the site by the finding of hammerstones turned up by the plough; a few trenches were cut in 1911, and the area was thoroughly investigated in 1920-22.

Bushe-Fox in 1915 had drawn attention to the presence of pottery of Hallstatt types (together with later wares) at Hengistbury Head, Hants; but since the site was doubtless a trading station and the stratification, moreover, unsatisfactory, the evidence was insufficient to prove immigration and settlement of people using such wares. At All Cannings Cross, on the other hand, there dwelt folk who used pottery of Hallstatt type for a considerable period; nothing was found among the *débris* which can be dated later than the La Tène I period (400-250 B.C.), and we thus for the first time have a wide range of material evidence illustrating the beginnings of the Iron Age in Britain.

The All Cannings Cross finds have in this book, written by Mrs. Cunnington, received treatment worthy of their importance. The entire range of artifacts obtained from the pits and dwelling sites of the village is illustrated in 51 plates, special attention being given to the pottery, which is remarkable both in form and ornament. The probable date and duration of the settlement, the racial type and origin of the settlers and their culture are discussed both in British and continental relationships. The author is to be congratulated on an admirable piece of work; her style is lucid, and her outlook scientific. The book is indispensable to students of pre-Roman Britain, and its value for the study of the Early Iron Age is comparable to that of Bulleid and Gray's "Glastonbury Lake Village."

The settlement is by the author considered to date in late Hallstatt and La Tène I times, *circa* 500 B.C. to 300 B.C. The evidence on the important point whether iron-using people were settled in Britain prior to the La Tène period (which dates from about 400 B.C.) is, however, curiously inconsistent. The All Cannings Cross pottery is definitely of Hallstatt types; but no Hallstatt fibulæ were found, all the brooches being of La Tène I character. A map showing the distribution of these brooches in Britain is included in the book; they are numerous in Wiltshire, and in the north-east extend as far as Cambridgeshire, from which county one example is recorded (there are, in fact, three, all in the Museum of Archæology and Ethnology, Cambridge, which also possesses an example from Suffolk).

It would be interesting to compare this distribution map with one showing the topographical range—and areas of greatest frequency—of Hallstatt brooches. Such a comparison is necessary if the significance of the presence in large numbers in Wiltshire of the later type is to be justly assessed. But on the evidence as given in



this book, the suspicion cannot but arise that the All Cannings Cross folk, though their culture presents Hallstatt elements, did not settle in Wiltshire until 400 B.C. or thereabouts.

In an appendix, Mrs. Cunnington suggests a tentative sequence of pottery from the All Cannings Cross era down to Roman times in Southern Britain, which is of the highest value as a basis for future research. She refers to other recently discovered Iron Age sites in Wiltshire; and we hope that she and her husband are continuing their studies of a period which they have already done so much to elucidate.

C. F.

## CORRESPONDENCE.

Africa, North: Linguistics.

Shaw.

To the Editor of MAN.

## The Dinka Accusative of Respect.

DEAR SIR,—With regard to my theory of the existence of a Dinka Accusative of Respect which Mr. N. W. Thomas criticises in MAN, 1924, 37, I may say that it is offered only as an explanation of the origin of what has been called a Genitive formed by placing the possessed object after the possessor. I agree that this formation has become in certain cases the equivalent of a Genitive, and that, e.g., *muk met nom* is in Dinka the idiomatic way of saying "hold the child's head," though its literal and original meaning may be "hold the child (as to, or) by the head."

Mr. Thomas refers to the two kinds of words used in Dinka as prepositions: "(a) those derived from verbs, like *ke*, *ne* (not *na*), etc., which precede the noun; " and (b) those derived from nouns, like *tar* (under part, i.e., under) which follow "the noun." I have pointed out that the use of this so-called Genitive is only possible when the relation between the possessor and possessed object is very close; in other words, when parts of the body are concerned; and the second or (b) class of prepositions is confined to a still smaller circle of exactly the same words.

It is impossible to disregard the connection between the Genitive and the preposition, and not to suspect that when the use of a part of the body can be translated as a Genitive, it is the development of some other original meaning. Herein, too, probably lies the reason for finding this kind of Genitive in the objective case only.

The words common to both the Genitive and prepositional use are so few that I think the following list is exhaustive. In the case of the former only can it be increased, and then only for other parts of the body.

<i>nom</i>	noun, head	preposition, on, in front of.
<i>tok</i>	„ mouth	„ at door of, in front of.
<i>lil</i>	„ posterior	„ under
<i>tar</i>	„ lumbar region	„ behind, under
<i>kou</i>	„ back	„ on back of
<i>lom</i>	„ rib, side	„ beside

These nouns are still in process of becoming prepositions, and so are found retaining a more explicit literal meaning, as well as the full correspondence to our English prepositions, thus—

*Tauc ran lom.*  
Put it man side. Put it on the side of the man.

This in Dinka has exactly the same two meanings that the English equivalent bears (a) Put it on the man's side (ribs), or (b) Put it beside the man. The meaning



of *lom* appears to be "on the side of," and so easily becomes part of a phrase corresponding to the English Genitive.

The following sequence bears out my theory, I believe, and may suggest a similar explanation for some of the other exceptions to the rule for the position of the Genitive that Mr. Thomas quotes from other Sudanic languages:—

The fowl's head is big. *Nom d'ajit adit.* (*Ajit nom adit* could not be used.)

Hold the fowl's head (head detached). *Muk nom d'ajit.* (*Muk ajit nom* could not be used.)

Hold the fowl's head (head attached). *Muk nom d'ajit*, but more idiomatically *Muk ajit nom.*

Hold the fowl by the head. *Muk ajit nom.*

Yours faithfully,

ARCHIBALD SHAW.

## Egypt: Archæology.

Burchell.

To the Editor of MAN.

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### Objects from El Kab.

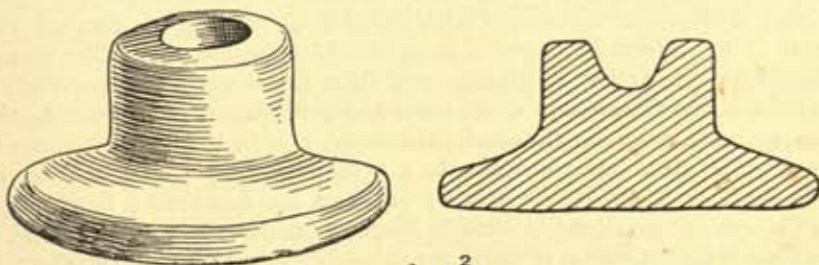
DEAR SIR,—Since bringing to notice the two pottery objects from El Kab\* I have received many letters asking my reasons for supposing that the Egyptians used candles or torches at so early a date as the IVth Dynasty, since Egyptologists have found no evidence that any thing but wicks in a bowl, and, during the XVIIIth Dynasty, tapers for ceremonial purposes, were in use.

Numerous alternative suggestions have been put forward; for instance, that they were double condiment dishes, sauce bowls, tea cups, flower vases, censers or lamps.

By way of answer I should wish to draw attention to an article by Mr. Gordon Childe on cultures to be met with in eastern Bulgaria and ranging from E.M. III to M.M. III.†



FIG. 1



scale  $\frac{2}{3}$

FIG. 2.

\* MAN, 1924, March, No. 28.

† MAN, 1923, January, No. 2.

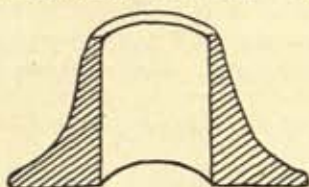


He says:—"But the conclusive proof of the identity of culture throughout eastern Bulgaria is the distribution of odd lids—'candlesticks,' clay models



scale  $\frac{1}{4}$

FIG. 3.



"of thrones and the unexplained articles figured in B.C.H., Fig. 7 and *Izvestia*, Fig. IV, 178. These shapes are peculiarly Bulgarian."

If a similarity be conceded—as surely it must—between Figure 1

from El Kab and Figure 2 from Bulgaria, then Figure 3, also from Bulgaria, precludes the use of the El Kab "candlesticks" for any of the purposes put forward by my correspondents.

Yours faithfully,

32, St. Mary's Mansions, Paddington.

J. P. T. BURCHELL.

#### ANTHROPOLOGICAL NOTES.

*Index to Fornander's "The Polynesian Race."*—"The Bernice P. Bishop Museum has published, primarily for its own use, an index of 86 pages to **97** 'The Polynesian Race,' by Abraham Fornander. London: Trübner & Co., 1878-1885. A small number has been set aside for distribution to libraries at fifty cents each, postage prepaid."

*University of Bristol Spelæological Society.*—In order to give an adequate account of the work during the session 1922-23, it has been found necessary to enlarge the Proceedings, of which Vol. 2, Part 1, has just been published. Of the communications in this part, the most important is one by Sir Arthur Keith on the human remains which have been discovered in Aveline's Hole, Burrington Combe. Of the three human crania described, all of late Pleistocene age and all imperfect, one is dolichocephalic, but the remaining two are brachycephalic with a glabello-occipital length of 178 mm. and a width of 143 and 142 mm. respectively, giving a cranial index of approximately 80. Although in absolute length and breadth these two skulls have a close correspondence with skulls from the Trou-de-Frontal, Furfooz, and some of the intermediate series from Ofnet, in outline they differ from them very decidedly. Sir Arthur Keith compares them to the cranial type recently found at Solutré and the Chancelade skull, particularly in respect of height. As the first instance of brachycephalic skulls of palæolithic date in England, the discovery is worthy of note. Mr. Davis contributes a third report on Aveline's Hole, Mr. H. Taylor a third report on Rowberrow Cavern, and Mr. Langford a fourth report on Read's Cavern. Excavations in Mendip Barrows are described by Mr. R. F. Read, the finds made in the course of these investigations extending the province of the Beaker Folk to the northern slope of the Mendips. Mr. M. C. Burkitt writes on "Cueva Menga" and the chronology of the Spanish dolmens.









FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.



## ORIGINAL ARTICLES.

With Plate I-J.

South Africa.

Braunholtz.

**Ethnographical Exhibition in the South African Pavilion, British Empire Exhibition.** By H. J. Braunholtz, M.A. 98

It may, perhaps, not be superfluous to call attention in a brief note to the interesting ethnographical exhibition which has been arranged by the Department of Native Affairs in the South African Pavilion at Wembley. Situated as it is in an



FIG. 7.

FIG. 8.

FIG. 9.

environment that is predominantly commercial, there is some danger of its escaping the notice which it merits from all who are interested in African Ethnology. The exhibition, which occupies the back of the central area of the pavilion, consists partly in a rich and varied collection of ethnographical specimens arranged in and above some dozen cases, and partly in a series of about 200 photographic studies of native life and crafts, some of which are illustrated in the accompanying plate. Great pains have evidently been taken to render the collection as representative as possible. A number of the leading museums of South Africa\* have contributed towards its formation, and their loans have been further supplemented by the generosity of a large number of private collectors, of whom it would be impossible to make individual mention here. It will thus be observed that a fine series has been temporarily gathered together, such as the student will not easily have the opportunity of seeing again. The arrangement and labelling of the exhibits has been admirably and attractively carried out by Major C. L. R. Harries, native commissioner and magistrate, and if the voracious appetite of the ethnologist remains still unsatisfied, he may purchase a catalogue describing both exhibits and photographs at the publications office. In the arrangement due regard has been paid to ethnographical classification. Too often in the past have South African natives been treated by collectors as one indivisible unit under the unilluminating title "Kafir." Here we have separate cases devoted to the Zulu (properly speaking) of Zululand, and others respectively to the Ba-Venda, the Ama Tonga, the Shangaan† and the Ama-Ndebele of Northern Transvaal, the Bechuana, the Basuto, the fairly homogeneous Transkeian (Xosa) group of tribes including Fingo, Tembu and Pondo, and finally, the Ova-Mpo of South-west Africa.

\* The following museums have contributed:—South African Museum, Cape Town (Dr. L. Péringuey); Bloemfontein Museum (Dr. Van Hoopen); MacGregor Memorial Museum, Kimberley (Miss Wilman); Natal Museum, Pietermaritzburg (Dr. Warren); Transvaal Museum, Pretoria (Dr. Swiestra); Kaffrarian Museum, King Williams Town (Capt. Shortridge).

† Some of these exhibits have been kindly lent by the "Mission Suisse Romande" of Lucerne and the Rev. Henri Junod.



The prehistoric Bushmen are represented by a few excellent plaster casts of rock engravings, lent by the South African Museum, and by facsimiles of rock-paintings. There is also a case of palæolithic implements of Acheulean type, lent by the Kimberley Museum, from the Cape Province.

Space does not permit of detailed comment, but a few items of more than ordinary interest may be briefly referred to. From the Venda we have the caudiform appendages worn by initiated girls (No. 61), and reminiscent of the married women's tails of the Keje from N. Nigeria. A Venda divining bowl with symbolic figures carved in relief is fully described in the catalogue (No. 63), and suggests comparison with the divining boards of priests of Ifa. Blacksmiths' outfits, with bellows of both the single and the double type, are well shown. No. 25 is a wooden parrying shield against battle-axes from the Bapedi of N. Transvaal: it bears a close resemblance to the well-known Dinka type of parrying shield, but is surely of extreme rarity in South Africa. No. 12 is a Ndebele bride's skin robe, beautifully embroidered with white beads; No. 97, a Shangaan witch-doctor's set of divining bones (Junod collection). Zulu woodwork and wire ornamentation of gourds are well illustrated, and there are specimens of the rare brass wristlets or cuffs (somewhat resembling the Abyssinian "bitoa" and similar examples from the Cameroons), which were presented to men as a badge of distinction by the Zulu kings from the time of Dingaan to Cetshwayo. A similar wristlet, presented by Lady Bruce, is in the British Museum. Most striking among the Ova-Mpo exhibits is a fine old specimen of a girl's dancing dress of ostrich egg-shell beads, with conical charms of ivory attached (No. 80).

It would be difficult to praise too highly the photographic studies of natives made by Mr. A. M. Cronin, who has worked partly in conjunction with the



FIG. 10.



FIG. 11.

authorities of the Kimberley Museum. They are remarkable alike for their technical and artistic qualities, and constitute an invaluable thesaurus of South African native types. Ethnologists are greatly indebted to Mr. Cronin for this piece of field work, carried out at considerable personal sacrifice; it forms a faithful



and permanent record of types and customs which are rapidly disappearing, and we can only hope that he will be able to continue his self-imposed task and perfect his collection while the opportunity lasts. The photographic negatives are being preserved in the Kimberley Museum. The accompanying illustrations are selected



FIG. 12.

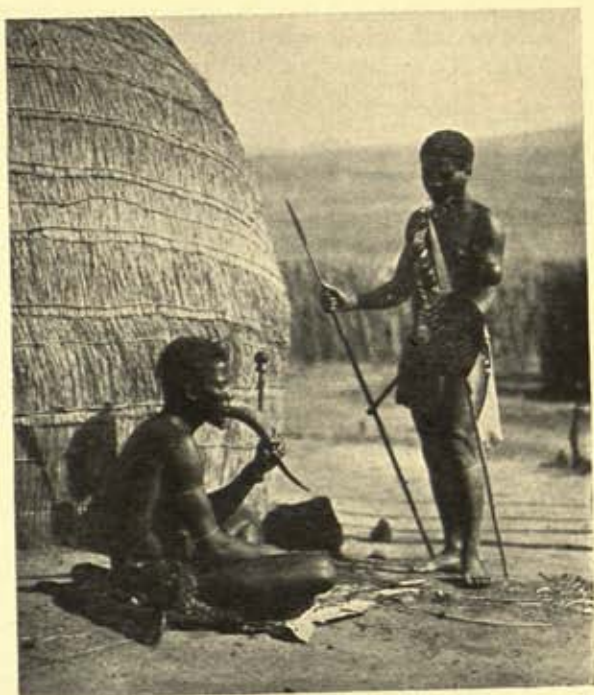


FIG. 13.

from among these photographs, which Mr. Cronin has kindly placed at my disposal, and the descriptive notes which I append have been for the most part supplied by him. The photographs have, I fear, lost some of their brilliance in reproduction here on such a reduced scale.

#### DESCRIPTION OF PLATE AND ILLUSTRATIONS IN THE TEXT.

1. Zulu youth, showing a common form of dressing the hair by braiding. (Cat. No. 171.)

2. Zulu youth with hair dressed by combing out. (Cat. No. 167.)

3. Zulu woman wearing high hair-dress (*inkehli*); this corresponds to the men's head-ring, and signifies that she is eligible for marriage or married. String is woven into the hair close to the head to form a firm base, and the hair periodically combed upwards. At less frequent intervals it is taken down, washed, plaited into long strings to straighten it, and then re-erected. (Cat. No. 176.)

4. Bushman, pure type, Griqualand West, using bow and arrow.

5. Bushwoman, Griqualand West, wearing "kaross."

6. Damara, South-West Africa, with bow and arrow.

7. Zulu old man wearing head-ring (*isicoco*). Permission to wear the head-ring was formerly granted by the king as a sign that a man might marry. The custom of wearing the ring is now almost extinct, and only found among old men. The ring was formed by twining fibre into the hair, which was then covered with the sticky secretion of an insect, blackened and polished with a pebble. The rest of the head was shaved from time to time.



8. Shangaan headman of Zulu type wearing the head-ring. Louis Trichardt district, N. Transvaal. (Cat. No. 144.)

9. Morolong; mixed Bushman type. This man is known to be of mixed Bushman and Bechuana descent. (Cat. No. 227.)

10. Tembu youth, Tembuland. Amputation of the first joint of the little finger is regularly practised on young Tembu men. (Cat. No. 200.) cf. G. W. Stow, "The Native Races of South Africa," p. 129.

"The custom of cutting off the first joint of the little finger was almost universal amongst the Bushman tribes." (It was believed by them to ensure a safe journey to the abode of the dead.) "A similar custom was prevalent among the old Tambukis, but we shall find when we enquire into their history that there is every reason to believe they derived it from their intimacy with the Bushmen."

D. Kidd, "The Essential Kafir," p. 262, describes the amputation of a finger joint, generally the little finger, as a common custom in some tribes. The various reasons given for it are that it is (1) against evil magic; (2) a sign of mourning; (3) to add strength to the remaining fingers.

11. Zulu carrying fighting shield and two assegais (normally three were carried). (Cat. No. 181.)

12. Zulu playing the reed flute (*umgangala*). He wears the complete Zulu skin costume, consisting of (1) a front piece (*isinene*); (2) a back piece (*ibeshu*); (3) side tassels (*izingobo*); (4) lateral strips above 1 and 2 (*izipenama*). (Cat. No. 258.)

13. Zulu men; one of them is smoking the dacha (wild hemp) water-pipe, the other holds a thrusting and a throwing assegai, a knobkerrie, and a ceremonial or dancing shield

H. J. BRAUNHOLTZ.

## Africa, East: Technology.

Ingrams.

### Marine Fish-Traps in Zanzibar, Pemba, South India and Brazil.

By W. H. Ingrams.

99

In an article on "Native Industries and Occupations" in "Zanzibar: an Account of its People, Industries and History," I have commented on the fact of similar traps being used in this Sultanate and Brazil (*vide* MAN, 1923, 9) and suggested that the activities of the Portuguese might account for their distribution. I now learn from Mr. Hornell's article (MAN, 1924, 41) that similar traps occur in South India. The single-way traps of Zanzibar are exactly similar to those of Brazil, and I agree with Mr. Hornell that they were probably of Indian origin, as there appears to be a far greater variety of them in India than there are in Zanzibar.

In the Zanzibar Sultanate we have already to thank the Portuguese for the European wild-boar, bull-fights (both of which occur in Pemba only), pineapples and other fruits, and a number of words in the language.

Cabral reached Brazil accidentally in 1500 on his way, *via* the east coast of Africa, to India, and I should think that there can be but little doubt that the Portuguese were responsible, during their long connection with these countries, for the introduction to other places from India of these traps.

In Zanzibar the traps are called *Ndema*, and are both single-wayed and double-wayed, though the latter are very rare and I have only met them among the Wahadimu of Zanzibar Island. In this country the top and bottom of the traps are made separately and the wall is made in a long narrow strip equal in length to the circumference of the top and bottom and fastened on with strips of the mid rid of the coconut. They are baited and weighted, as described in both the articles referred to, but marked by a buoy consisting either of a piece of wood or the woody sheath of the coconut flower.

I have no photographs of them available, but have exhibited specimens of both varieties in the Zanzibar Court of the East Africa Pavilion at the British Empire Exhibition.



A trap peculiar to Pemba Island is the *Mgono*, first described in the book referred to at the beginning of this article. As it is peculiar to Pemba and "fixed in the channels between the breakers"—and as the *Ndema* is apparently a comparatively recent importation to Zanzibar, I feel the more convinced that the *Mgono* is the original trap described in the "Periplus" and that Pemba is the original Menuthias. Other reasons for this belief I have given in the historical article in the same book.

W. H. INGRAMS.

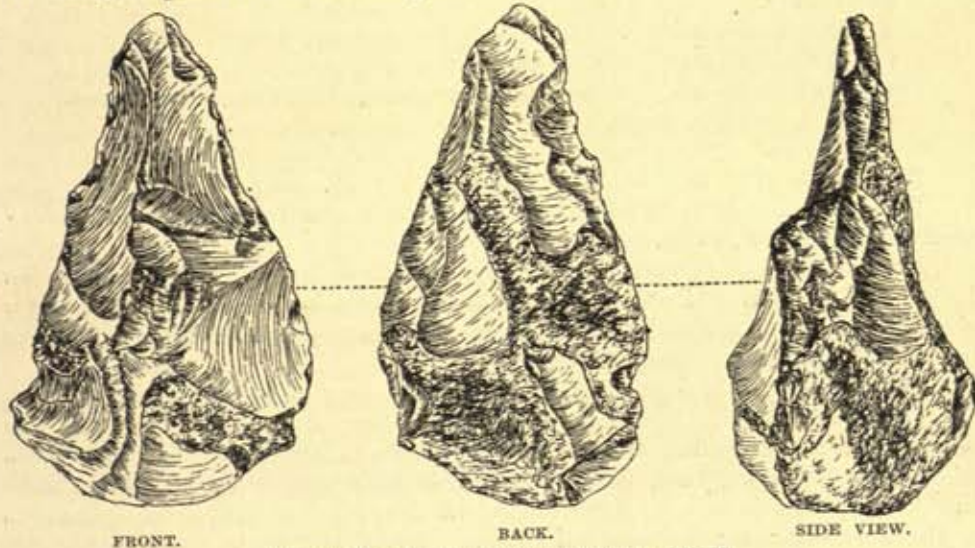
### Britain: Archæology.

Clay.

**A Flint Implement from Pucknall, Hants.** By R. C. C. Clay,  
M.R.C.S., L.R.C.P.

100

This implement was found in a road heap at the cross roads at Braishfield, with a hammer-stone and a rough core. The stones of this heap corresponded in every detail with those collected into small heaps in a field half a mile away, on the north side of the road below Pucknall, at 160 O.D. Undoubtedly they came from this field, as part of it was already cleared.



FRONT.

BACK.

SIDE VIEW.

A FLINT IMPLEMENT FROM PUCKNALL, HANTS.

It is Chellean in facies; in the flaking, the sinuous edges, the crust on the thick butt it resembles the typical *coup de poing*. It is, however, unrolled and unbattered and shows very little signs of weathering. The flint is impure, of the "clay-with-flints" type and has a faint greyish blue patina. From the associated implements of similar quality flint and patination in the fields around Pucknall, it is certainly not Palæolithic and possibly not even Neolithic.

Length, 5 in.; width,  $2\frac{3}{4}$  in.; thickness of butt,  $2\frac{1}{2}$  in.

R. C. C. CLAY.

### Polynesia: Religion.

Ivens.

**The Polynesian Word *Atua*: its Derivation and Use.** By the Rev.  
W. G. Ivens, D.Litt. (Continued from MAN, 1924, 86.)

#### PART II.

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#### 2. The Personal Article.

The theory advanced in this paper as to the derivation of *atua* is that it is made up of the root *tua* "old" and a "Personal Article," so that *atua* is "the ancient one," i.e., "the ancestor." There is no evidence of the *m* of the adjectival suffix *ma* (*matua*) being dropped, but it will be shown that in the case of the Polynesian word *ariki*, "chief," the Personal Article coalesces and forms one word, and we



may, therefore, make the suggestion that the same thing has happened in the case of *atua*.

(a) *Personal Articles*.—The name "Personal Article" was given by Dr. Codrington to those particles "by which the names of individuals and tribes are always preceded" and which "are regular attendants on the Personal Pronouns." In the Melanesian languages these Articles are regularly used with adjectives to personify—*i liwoa*, the great man, the chief (Mota).

The Personal Articles used in Oceanic languages are four in number, the vowels *a*, *e*, *i*, *o*, and three of these occur also with the initial consonant *k*, and one with *t*.

(b) The following table shows the occurrence of the Personal Articles in Polynesian and Melanesian languages:—

<i>a</i>	} Solomon Islands, Maori, Tonga.
<i>ka</i>	
<i>e</i>	} Motlav, Vanua Lava, Torres Islands (Melanesia).
<i>ke</i>	
<i>te</i>	} Polynesia generally.
<i>i</i>	
<i>o</i>	} Hawaii, Maori, Mangaia, Tahiti, Rarotonga, Fiji, Fagani (Solomons).
<i>ko</i>	
<i>ʻo</i>	
	Samoa.

For the use of *ko* in Rotuma see Codrington, "Mel. Lang.," p. 403.

For *ko* in Fagani see Fox and Drew, "Beliefs and Tales of San Cristoval" (*Journal Anthr. Soc.*, 1915).

Personal Articles as such do not occur in Malay, but Dr. Codrington, "Mel. Lang.," p. 110, finds evidence of them in the Malay *aku*, *angkau*,\* and in the particle *si* of the Javanese. He finds *ko* also in the Maori personal and interrogative pronouns *ko-au*, *ko-wai*, respectively.

The evidence for Malagasy *i* is seen in "Mel. Lang.," p. 109.†

Dr. Fox, "Social Organisation," p. 148, draws an argument from the two Ulawa words *a'ula*, brother, sister, and *aiha*, relations-at-law (Ivens, "Sa'a and Ulawa Dictionary"), showing that the initial *a* which the present writer had stated to be the Personal Article may be a sex prefix, which appears in the Bauro equivalents of the two words quoted, *waura* and *waiha*. The initial *a* of the two Ulawa words coalesces with the noun in certain forms, e.g., *a'ulana*, his brother; but *alai 'ulaku*, brethren (Vocative).

Mr. Ray, in a letter to the present writer, speaking of the initial *a* of *atua* says: "Kern thinks it is probably the Old Javanese *da* or *ra*, the prefix article of respect, "as in Old Javanese *datu* or *ratu*, 'chief,' Sumba priest; Malay *datu*, Tagala and "Bisaya *datu*, tribal chief; Fiji *ratu*, Sir." Is there any possibility of the Personal Article *a* being derived from this *da* or *ra*?‡

If *atua* be composed of a Personal Article and *tua* old, then the coalescing of *a* with *tua* may be paralleled by the Sa'a and Ulawa word *alaha*, "chief," which is compounded of a Personal Article and *laha*, "great," so that *alaha* is "the great one," the chief. There is no employment of a second *a* before *alaha*: *atei e unue? alaha e ue*. "Who said so? The chief to be sure."

With *alaha* formed in this manner may be compared the Polynesian word for chief, *ariki*. Andrews in the Hawaiian Dictionary says that *lii* (*riki*) is the primary form for *alii* (*ariki*). The Tongan-form of the word is *eiki*, i.e., *e iki*—*a iki*, the change from *a* to *e* being a common change in Tongan. Dr. Macdonald quotes the Aniwan

\* In these words *ak* and *ka* are the roots: *n* and *ang* demonstrative elements.—S. H. RAY.

† The Malagasy *i* is the *si* of Java.—S. H. RAY.

‡ This *ra* in Malagasy denotes respect, *i* shows inferiority.—S. H. RAY.



*teriki*: *ta teriki*, the chief, where the *te* of *teriki* is the Personal Article, and *ta* may either be another form of this *te* or may be the common numeral *ta*, "one," used as an Article.\* Dr. Macdonald says that the *riki* of *ariki* means "old," and quotes an example from Efate. If such be the meaning of *riki* then *ariki* is equivalent to "the old one." If we were dealing with Melanesians we might say with more or less certainty that the *riki* of *ariki* was the common *riki* = small, and *ariki* would be an affectionate term for the chief.

In Aitutaki *te* appears to coalesce in the same way with the Noun, and a further Article is prefixed, *O Te-erui*. (Williams, "Missionary Enterprises," p. 67.)

That the Personal Article *a* appears in the Malay Pronouns *aku* and *angkau* may tend to show that *a* was an early form of these Articles in Oceania.†

(c) *The word aitu*.—A second word *aitu* appears throughout Polynesia meaning "spirit," "ghost," and in later times "demon," "god." Tregear and Percy Smith in the Niue vocabulary have *aitu* "a ghost." Originally *atua* was used for "God." "*Atua*: a god, a spirit, a ghost." In Samoa *aitu* is used for ghost, and in both Samoa and Maori the dictionaries have "demon" as its equivalent. In Tongan *aitu* is "a heathen feast." In the Rotuma Bible *aitu* is used for "God," and *atua* for "demon." In the Marquesas betel-pepper is *kavakava-atua*, in Tahiti it is *avaava-aitu*, in Samoa it is *'ava'ava aitu*. Maori has *atua* as the name of the thirteenth day of the month where Mangaia has *maitu*. The words *atua* and *aitu* are thus used interchangeably. A reason for this may lie possibly in their being the same etymologically, for *aitu* may be *tuai* by metathesis.

### 3. Other Suggested Derivations of *Atua*.

Dr. Fox ("Social Organisation," p. 149), while favouring the derivation of *atua* from *tua* with the Personal Article *a* prefixed, yet suggests an alternative derivation from the root *ruka*, *runga* (Maori) "up, above"; "through a possible interchange of *t* and *r* we would get Mota *tuka*, sky; Santa Cruz *duka*, ghost; and "Polynesia, *atua*; also an explanation of Florida *ta-runga*, Wango *a-unga*, and "kindred words such as New Guinea *a-rua*, Maori *wai-rua*, Tahitian *va-rua*, Burutu "*va-ru*" all meaning "spirit."

Gill, op. cit., says that Dr. Maunsell connects *atua* with *ata*, in Maori "reflected image," in Tahiti, Tonga, Samoa "shadow," in Mota "soul." Codrington and Palmer, op. cit., compare *ata* with Motu *vata*, "ghost"; to which we may add Fiji *vata* in *vavata*, *vauvavata*, "likeness." In Malay, Bruang *ada* is "ghost."

That to the native mind spirits or souls are shadows is shown by these meanings of *ata*; but one could not derive *atua* from *ata*, the *u* of *atua* could not disappear so completely.

Gill, op. cit., seeks to explain and derive the word *atua* from "the closely allied expression *atu*," "stone" in Mangaia (*fatu* in Tahiti and Samoa). He instances also *aitu*, and says that in the latter the *a* (of *atua*) is lengthened into *ai*. The Samoan dictionary gives "core" as the second meaning of *fatu* (stone). Gill says "a key to the true sense of *atua* exists in its constant equivalent *io*, core, pith, essence. Analogically God is the pith, core, life of man." Herein he is starting from the mystical and allegorical as the basis for his etymology, and is taking the figurative sense as the primary.

The secondary use in Samoa of *fatu* as "core, kernel" does not alter the fact that its primary meaning is "stone." The Melanesian languages employ a prefix *wo*, *hoi*, meaning "fruit," in order to give this secondary meaning: Mota *wo vat*, Sa'a *hoi heu*, pebble, round stone. Mangaia and Maori both have *ko whatu* as well

\* This is wrong. *Ta* is the indefinite article and *te* the definite. *Teriki* for *te eriki* was a mistake of Dr. Paton.—S. H. RAY.

† See note \* on preceding page.—S. H. RAY.



as *whatu*, where *ko* is the equivalent of the Melanesian *wo*, *hoi*.<sup>\*</sup> In etymology we must beware of allowing the applied meaning of a word to blind our eyes as to its radical meaning, and superimposed ideas or presuppositions must not be brought into the question.

The Manganian *io* cited by Gill can have no etymological connection with *atua*, though it may be possible to find a metaphysical connection: *io* is Maori *iho*, pith, etc., Melanesian *uho*, *uso*, Malay *utok*, *otok*, *uten*, etc., marrow.

Mr. Ray writes: "*Atua* is probably connected with the Makassar word *Matuwa-ya*, God, i.e., the holy (one): Batak has *mortuwa*, holy, *mortuwa debate*, the holy God. Makassar stem *tuwa* = happiness; hence *Matuwa-ya*, the blessed (one), Dayak *tuah*, happiness, *batuah*, happy. *Tuwa* is probably related (so thinks Kern) with the Old Javan *atuha* or *atuwa*, old, illustrious, Dayak *hatua*, hero, man, Nias *atuatua*, wise, Makassar *towa*, old, grandfather, and *towa-longrong*, the first forefather, Bugis *towa-longrong*, the first forefather.

WALTER IVENS.

(To be continued.)

## Africa, West: Technology.

Malcolm.

**Iron-working in the Central Cameroon.** By L. W. G. Malcolm.

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All trades in the Bagam area, Western Cameroon, are under the direct control of the head-chief. The headman or senior tradesman is always an attendant (*cuo foñ*) on the head-chief, so that any orders that may be given are communicated to him direct. It is not usual for any contracts to be undertaken without the head-chief's cognisance. A tradesman is considered to be a privileged person, and is exempt from all work other than his own. The position of the head tribesman is hereditary, and passes from father to son, or, failing that, to his eldest brother or his eldest son. There is a limited number of apprentices allocated to each trade, and in course of time they are incorporated in the guilds, which, as a rule, are restricted to a very small membership. The various trades are usually confined to a *pfi*, or group of compounds; and the workshops are in the centre of the town, not far from the head-chief's compound. As far as could be seen, the only exception was in the case of the iron-smelting furnaces, which were situated on the outskirts of the town.

*Iron-smelting.*—Before a stranger is allowed to enter the iron-smelting hut (*n-dēp m-bū*) a certain ceremony takes place. A liquid in which the leaves of a plant (*m-vuñ*) are infused is kept in a calabash just inside the hut. As the visitor enters he is sprinkled with it by means of a whisk made of leaves and twigs. A fowl must then be presented to the head workman. Its legs are tied with a creeper (*yayap*), and, holding it in his left hand, the visitor is led to the furnace (*m-bū*). The fowl's throat is cut and as the blood is flowing it is sprinkled over the top of the furnace. Each person in the hut is then given a piece of roasted plantain, which is eaten at once. The non-compliance with this ceremony would cause the charge in the furnace to be a failure. The flesh of the fowl is cooked and eaten later on by all the iron-smelters.

The furnace is housed in a low hut with a gable-roof, the walls being about four feet six inches high. The shape of the furnace differs from the usual West African type, which is high, and built above the surface of the ground. The *E-γāp* type is built in a pit with a sloping approach, and appears to be a development of the Kordofan furnace, only much larger. It is square in horizontal section, the back

\* But Maori has also *pouhatu* in which *po* is not "fruit."—S. H. RAY.

† Guillemain, "Ergebnisse geologische Erforschung im Deutschen Schutzgebiet Kamerun."—Mitt. a. d. Schutzgeb., 21 (1), 1908, 15-35.



being the natural ground. The two sides and front are built from beaten clay with which chopped grass has been mixed. In shape it is square in vertical section, and the internal dimensions are about two feet across, and about four feet high. The external measurements are four feet across the face, and about five feet along the sides. The charging hole (*ku m-bū*) is on the top, between the two sets of bellows (*tsu sison*) and the gas escape tube (*buko dze m-bū*). The bellows are arranged on the solid earth on the top at the back of the furnace. To each set of bellows there is one tuyère, about three feet six inches long, which is made of clay. The lower end rests on the sloping fire-bed (*dzem m-bū*) inside the furnace.

After a charge has been reduced and drawn from the furnace, the face, inside walls and fire-bed are washed with clay and water. The fire-bed is well beaten with a wooden mallet and the furnace is then left for half-an-hour. A thick bunch of dried plantain leaves is laid on the fire-bed and the tuyères let down and the ends are rested on it. When in position they are luted in at their inlets by thick clay. A layer of reuse (*se iyāp*) from former smeltings is then sprinkled over the plantain leaves. The furnace bars (*dzaa n-tē m-bū*), made from discarded tuyères, are then placed in an upright position in the mouth of the discharging hole at the bottom of the front wall of the furnace, and luted in by means of thick clay. Two small holes are pierced in the clay between the furnace bars, and these act as supplementary gas-escapes when the furnace is in full blast. A few live coals are then thrown down on the plantain leaves near the mouths of the tuyères, and the bellows are worked gently until there is a blaze. A small portion of the charge is then fed in, and when the fuel is well ignited a larger portion is poured in through the charging hole. The charge is fed gradually and never in one operation. When the ignition is complete the bellows are worked at full pressure for about twenty-four hours. The bellowsmen are relieved at regular intervals so that there is no diminution of the blast. The gasses are discharged through the escapes in the discharging-hole and the pipe on the top of the furnace. No tests are made as to whether the reduction is complete or not, and the only method is to work the furnace for about twenty-four hours, and the result left largely to chance.

To discharge, the bellows are withdrawn and the tuyères prised out. Water is then dashed on the face of the furnace and it is left for half-an-hour. The fire-bars in the discharging-hole are then broken out, and the smelted mass dragged down the sloping bed by means of a hook. The iron (*tiño m-bū*) is in the form of two long irregular masses, connected near the end by a short bar. In weight, the mass is about sixty pounds. It is drawn to a spot outside the hut, where it is broken up by hammers and the coarse slag (*se iyāp*) removed and thrown into a heap. As there appeared to be no idea of the use of fluxing agents, the bloom is usually in a very dirty condition. The iron, when cleaned, is placed in a heap ready for the iron-worker.

As soon as the iron is removed, preparations are made to get the furnace working again. The smelting goes on continually, as there is a constant demand for the metal.

As far as could be seen, the proportions of the charge are half ore and half fuel. When the supply of charcoal is low, kernels (*m-bē*) are used. An analysis of ore and slag from an area close to Bagam gave the following results:—

	Ore.	Slag.
Fe . . . . .	20.72	52.37
SiO . . . . .	56.72	16.04
Mn . . . . .	0.88	2.37
CaO . . . . .	0.00	4.22
MgO . . . . .	0.00	0.60
P . . . . .	0.04	0.36



*Iron-working.*—The ironworker (*n-tce iyēp*) is one of the most influential tradesmen in the tribal area. He is responsible for the manufacture and repair of all the weapons and sacred iron instruments. Weapons for the use of individual members of the tribe may be ordered independently, but the head-chief is always informed of what is being done, and he is at liberty to countermand any of the private orders.

The raw material (*tiño m-bū*) is purchased from the iron-smelter in the condition already described, and is prepared by the assistants and apprentices for working up. A rope ring resembling a quoit is placed on a stone anvil, and the iron is pounded up inside it to further disintegrate it. The resultant product is then taken to the iron-worker, who works it up into small blocks about four inches long by two inches across. As a rule, the fine slag is thrown away, but sometimes it is sold to be used in the preparation of medicines, etc.

The smithy (*n-dēp iyēp*) is an open shed with the forge on the ground. The bellows consist of two wooden wind-boxes on a base, with two short tuyères attached. In section the wind-boxes are somewhat short and bowl-shaped, with a flanged rim at the mouth. The covering-heads are of prepared hide and they are fastened to the wind-boxes by being lashed below the flanged rims. The rods are forced down into the skin and fastened on the under side before the heads are lashed on to the wind-boxes. Clay tuyères, about eighteen inches long, are used with the bellows. They are not luted on, but laid on the ground, leaving a space of about an inch between them.

The working tools are the iron hammer (*n-duño iyēp*), which in shape closely resembles a lead-worker's dresser, chisel (*ñ-gwat*), pincers (*fivi*), and anvil (*ñ-dun*), which may be of iron or stone (*pui iyēp*). The bellows are worked by the apprentices, who are also responsible for the upkeep of the fire. The fuel used is charcoal (*ñ-kyie*), which is prepared by one of the workmen allocated to the iron-worker. Sometimes kernels (*m-bē*) are used when the supply of this fuel is scarce. A small boy assists at the fire and damps it occasionally with a leaf switch.

The articles made by the ironworker include weapons such as spears and sword-knives, chains, nails, musical instruments, farm implements, etc.

The principal iron-worker in Bagam is also a wood-carver (*kwoñ gurume*). He makes a speciality of carving sword-knife and knife handles (*ñ-bere*) and also spear-shafts (*fañ kuuñ*). The tools used are iron-bladed knives (*ñ-bere kop*, *ptii mii*) and a short iron rod to burn and trace the designs (*yuo kwoñ*).

L. W. G. MALCOLM.

#### Africa, South: Sociology.

Hudson and Prescott.

**The Election of a "Ngambela" in Barotseland.** By R. S. Hudson and H. K. Prescott. **103**

Over the people of Barotseland reigns a Paramount Chief. His position, though it is difficult to find a European parallel, may in many respects be compared to that of a President in a modern republic. His chief function is to nominate a principal executive and advisory officer called the "Ngambela" or leader of the Council of Indunas. This officer, provided of course he proves acceptable to the British Protectorate, holds his position for life, and the ceremony of his installation is at once so picturesque and impressive that we need make no apology for describing it in some detail.

The river Zambesi, like the Nile, floods its valley every year, reaching its greatest volume in the month of May, when the whole plain may be one sheet of water to a width of thirty miles from side to side. At such times islands of refuge are provided by small hillocks—the work of bygone generations of ants—with a



diameter of four or five hundred yards, upon which the native villages are built. On the largest rises the palace of the Paramount Chief, together with his "Khotla" or Senate-House. Our party, consisting of the Resident Magistrate and his staff and escort, approached the island on a native barge. Disembarking, we proceeded in due order up a sandy path towards the Khotla. Overhead blazed the tropical sun; on our right were the houses of the Indunas; on our left rows of storehouses. The Khotla itself takes the form of a rectangular hut, measuring three hundred feet by eighty, open on one side, with a roof of thatch supported by immense timbers. Separated from it by an open sandy space stands a much smaller hut, maintained as a guest-house against the coming of the Chief's Aunt—an old lady who remembers Livingstone. Her visits to her nephew are not frequent, however.

Having exchanged greetings with us at the entrance to the Khotla, the Paramount Chief led us to the seats placed ready for us on the raised dais, next his own. Round the sides of the apartment, in order of precedence, sat the Indunas of the country, some of whom had journeyed over two hundred miles to be present. In the midst sat a native minstrel with a weird instrument of parchment-covered gourds, giving different notes when beaten. First there assembled before the Khotla the people of the village belonging to the holder of the Ngambela's office. The Chief then ordered Imbwae, as representative of the old and decrepit Induna Noyoo, to search the Khotla for a new Ngambela. It is the privilege of Noyoo to do this, as he is the headman of the village of Chief Mboo, the founder of the present dynasty. Imbwae walked round the Khotla, and stopped in front of Mukulwakashiko, whose election had been really predetermined. Leading him by the hand, he placed him in front of the people of the Ngambela's village, thus proclaiming him to be the new Ngambela. The Paramount Chief then ordered his servant to give the insignia of the office to Noyoo, in order to show that the investiture was taking place with his consent. Imbwae then clothed Mukulwakashiko with a reedbuck skin tied in front round the waist, and another behind. Down his back hung a blanket covered by a leopard skin, signifying authority. On his head over a red cap was fastened a lion's mane, to make him strong and brave; in the left hand a double bell; in the right a striker. This bell in former times was used by people bringing tribute to the Paramount Chief.

When the Ngambela had assumed his robes of office, lengthy speeches were addressed to him by various Indunas selected by the Chief, during which he was allowed to make no reply.

"Do not become proud," said one, "because you alone have this honour, since only one can be Ngambela. You are not the head of this country—the Paramount Chief is that—and you owe him not rivalry, but loyalty. Listen also to what the people and the Indunas say, and do not run counter to the wishes of the White Man."

Other speakers emphasised the unity of the wide territory over which he would now hold sway (an area of 120,000 sq. miles). One Induna became quite lyrical over the good works of the White Man.

The Chief himself next addressed the people, charging the Indunas to collect the taxes faithfully and to administer the laws without respect of persons. At the close of his speech the Resident Magistrate addressed the assembly.

At the closing of the Resident Magistrate's speech the Royal salute was given, and the newly elected officer led off to wash in the canal, after which he was shown his feeding place in the Chief's compound, not being allowed to re-enter the Khotla until the following day.

So ended the ceremony.

R. S. HUDSON.  
H. K. PRESCOT.



## Africa, South: Bushmen.

Laidler.

**Bushmen of Namaqualand.** By P. W. Laidler.

104

In MAN, 1915, 76, under the heading of "Pre-Bantu Occupation of East Africa," Dr. H. Stannus remarks:—"Under the above heading Mr. Beech has recorded in MAN, 1915, 24, notes on a Kikuyu tradition of cannibal dwarfs, a legendary people who are supposed to have inhabited that part of Africa before the Gumba, who in turn were followed by the Kikuyu." Dr. Stannus was struck by the resemblance to his own notes on a legendary "little people" in Nyassaland. The description given is not unlike the Bushman, with the exception of the long beard. Dr. Stannus continues: "when anyone met one he was immediately asked 'Mumbonelekwapi?' (from how far did you see me?) and it was always well to pretend to have seen the little man coming a long way off, and make him believe he was considered quite a big person; if you said 'Hallo, I have only just spotted you!' he would immediately spear you."

Here in Namaqualand, Bushmen were plentiful within the memory of many of the older people. I have talked with many pioneers, men aged from eighty to ninety, who took an active part in the extermination of the San. When a Bushman approached a white man, the latter diagnosed his attitude, peaceful or otherwise, in this fashion: "When a Bushman appeared and you asked him how far off he had seen you, and he said 'Oh, a long way off,' you were safe; but if he said 'Oh, I saw you just now,' then look out, for he means to kill you." Other observers agree that though the Bushman was proud of his physical fitness and of his prowess, he was always annoyed when comment was made on his short stature.

P. W. LAIDLER.

## Minorca: Archæology.

Murray.

**Bronze-Age Pottery from Minorca.** By Margaret A. Murray.

105

By the kindness of Senhor Don Juan Flaquer y Fabrigues I am able to publish three pieces of Bronze-age pottery found by Senhor Flaquer in the course of his excavations in Minorca.

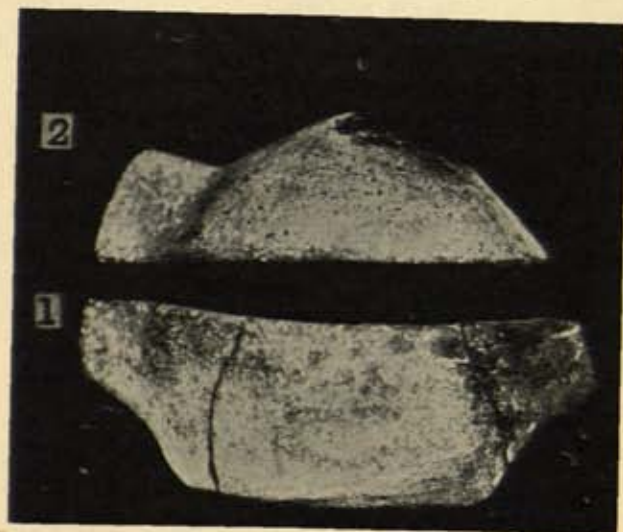


FIG. 1.

No. 1. Rough gritty ware with spicules of white; no slip; the surface is carbonised a blackish-red. Hand-made. The handles are pierced vertically.

No. 2. A lid, not belonging to No. 1, but evidently from a smaller vessel of similar shape. The ware is finer than No. 1, it is covered with a red slip, so thin that in many places the white spicules show through. Hand-made. The whole surface has been polished, probably with a pad of wool, before firing in exactly the same way as

the Bronze-age pottery of Malta. The handles were applied after the slip, but before the polishing, as can be seen by the place where the missing handle was



once set. The remaining handle is pierced vertically, and traces of the hole through the missing handle are visible on the edge of the lid on that side. In Egypt a vessel with a pointed lid and protruding pierced handles is represented as carried by a woman (Ayrton, "Abydos," III pl. xvi. 3); the figure is itself a vase, and is not of Egyptian production. It is extremely interesting to find a vessel of this distinctive form in both the east and the west of the Mediterranean. The date of the Egyptian example is late XVIIIth dynasty; the Minorcan example is as yet undated.

No. 3. Rough gritty ware with large white spicules; a very thin bright-red slip over the front and inside the cup; at the back the unslipped surface is burnt black. Hand-made. The shape is quite unknown to me, and appears to be an

imitation of a metal cup in a circular basket-work frame with handles. The section-drawing shows the position of the cup supported by the rim only and not



FIG. 2.

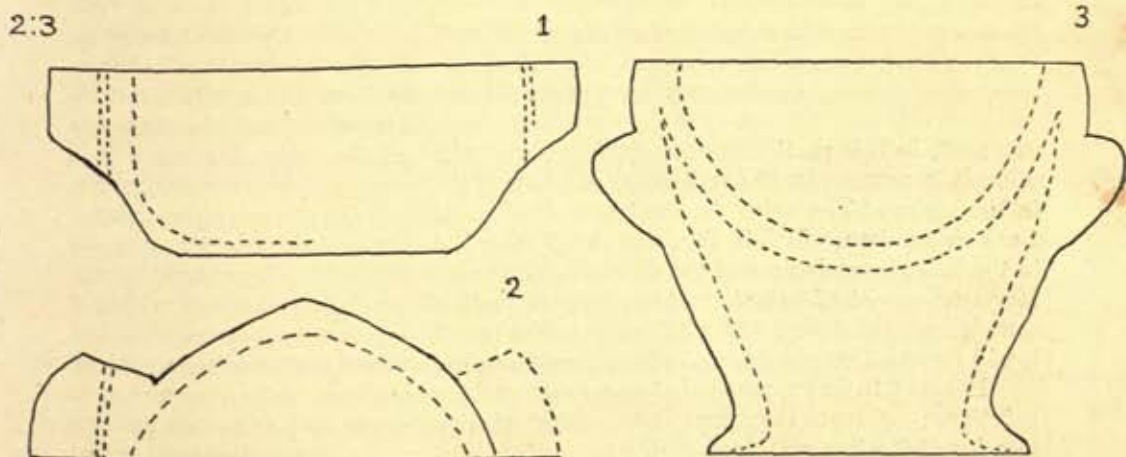


FIG. 3.

extending to the base. The handles are not pierced. The decoration of crossed lines extends about half-an-inch beyond the handles. The white spicules are apparently pounded shell, and are more marked than in the Bronze-age pottery of Malta; otherwise the ware closely resembles the Maltese Bronze-age pottery. The shapes and decoration are, however, entirely unlike those of Malta.

M. A. MURRAY.



America, South: Archæology.

Gardner.

**On the Nature of the Colouring Matter employed in Primitive Rock-Paintings.** **106***By G. A. Gardner.*

The following observations on colouring matter were made in the course of a study of a large number of rock-paintings of considerable age in the north-west of the province of Córdoba, Argentine Republic. The colours used are white, light bluish-grey, black, dark grey, possibly a faded black, and red. Nearly 89 per cent. of the individual figures are monochromes in white, black or red, the remainder in combinations of these and the other colours. The proportions of the white, black and red figures to the total are 68.42 per cent., 11.78 per cent. and 8.67 per cent. respectively. It seemed most probable that the white and red paints were of a mineral nature, prepared from limestone and ochre respectively, and that the black paint had some organic substance, such as charcoal or soot, as a base, except in a few cases where pyrolusite ( $MnO_2$ ) seemed to be indicated. One of the rock-shelters was occupied by a pair of vultures, and the accumulation of guano showed that it had been the home of large birds of prey for a very long period. The strong resemblance in colour and aspect of the dry excrement to the white colouring matter employed in this particular shelter suggested a possible source of the material.

In order to ascertain the nature of the various colouring substances used, minute samples of the white, red and black paints were taken from four separate rock-shelters and submitted to a very careful series of microscopical and chemical tests, for which I am indebted to Dr. Franco Pastore, of the Argentine Government Department of Mines. The results obtained were as follows:—Two of the samples of white paint were found to consist of hydrated oxide of calcium, only slightly altered to carbonate by atmospheric action. In other words, the substance used was slaked lime, and it is very interesting to know that the aborigines of that time (the paintings are not later than the middle of the 16th century) were apparently acquainted with the process of lime-burning. A third sample of white paint gave a no less interesting result in that it proved to consist of sulphate of calcium with phosphate of calcium. The use of calcined bones might account for the phosphate of lime content, but its presence also seems to confirm the conjecture that the white colouring matter was prepared, in this particular case, from the excrement of the larger *Raptores*. It is difficult to account for the presence of sulphate of lime, as gypsum is very uncommon in the region. The paint does not contain aluminium. The red colouring matter was oxide of iron, which in the form of red ochre is common in thin veins and layers in the Triassic sandstones of the district. The only sample of black paint taken was found to consist of organic matter, perhaps soot. It was not possible to obtain a sample from the figures which I thought might have been painted with pyrolusite, but it will be seen that proof was obtained elsewhere of the use of this mineral as a paint.

It is not to be supposed that these colours were employed exclusively for rock-paintings; no doubt they were also used for painting designs on pottery and perhaps also for distinctive markings on the face. On the sites of ancient aboriginal settlements in north-west Córdoba I have found small nodules and cakes of red, black and yellow paint. Analyses of these, also by Dr. Pastore, showed that they consist of ochre, perhaps burnt, dioxide of manganese (pyrolusite), and limonite, respectively.

G. A. GARDNER.

**REVIEWS.**

Malta: Archæology.

Murray.

*Excavations in Malta.* By Miss Margaret Murray, with a chapter by Miss G. Caton Thompson. **107**

Under this title a small but fully illustrated book by Miss M. A. Murray, F.S.A., was published by Bernard Quaritch. Miss G. Caton Thompson contributed a chapter on the Ghar Dalam Cave at Birzebugia.



The net result of Miss Murray's investigations during her first season in Malta is not very striking, but one can see that good work has been done and very accurately recorded.

The clearing of the minor sites on the Zurrico-Birzebbugia road proved rather disappointing, as far as pre-historic remains are concerned, but we have learnt at least what was concealed in the mounds on which so many eager eyes were cast.

The excavation of Borg-In-Nadur was a more important operation, for the site is one of the most remarkable in the Island. When the second part of the book is published we shall, probably, learn what general conclusions Miss Murray has drawn from her observations. So far she has, very wisely, limited herself to giving all the details of what she has brought out of the huge mound of soil, stones and potsherds, raked, broken and generally deranged by generations of farmers.

The twenty-one illustrations are of great help to the reader's comprehension of the details of the small objects met with. Miss Murray, very pertinently, lays stress on the difference between the Neolithic and Bronze Age pottery of the Maltese Islands. Archeologists have, practically, nothing else to go by when they wish to fix comparative dates. Fortunately the Stone Age pottery differs so widely in quality and technique from the Bronze Age ware that it is easy to discriminate between the two, though, of course, doubtful specimens crop up now and then which baffle the experts, but these are comparatively few.

Miss Murray has taken all precautions to note the position of all the material met with, and although no wide conclusions may be drawn, so far, from this report, still one ought to be grateful to her for having taken so much pains to carry on an important investigation under considerable difficulties.

Miss Caton Thompson's chapter is an important document, for, although it occupies but eight pages of the book, it gives a clear notion of the character of the Cave and of the labour involved in clearing a deep layer of damp clayey soil in search of remains which range between the Ice Age and the Phœnician Period.

Unhappily Miss Caton Thompson happened to choose a point in the Cave poor in archaeological material, but she worked her portion with so much care that her report is a solid contribution to the study of the Ghar Dalam Cave. T. ZAMMIT.

#### America, South: Art.

Lehmann, Doering.

*The Art of Old Peru.* Under the Editorship of Walter Lehmann, assisted by Heinrich Doering, Ph.D. London: Ernest Benn, Limited. 1924. 108 Pp. 68, xii + 128 plates, 13½ × 9½. Price £5 5s.

This splendid volume by Doctors Lehmann and Doering fills a gap in reproductions of ancient art. The book consists of a short historical survey of ancient Peruvian art by Dr. Lehmann, and a very interesting account of the land, people and monuments by Dr. Doering. Besides the numerous small illustrations in the text, there are 12 coloured and nearly 130 uncoloured plates of ruins of buildings, feather-work, metal-work, and shell inlay, etc., but most illustrate pottery. The objects shown in the beautiful plates are chosen more for their æsthetic merits than for their ethnographical value. The series from Pachacamac, Nazca, Trujillo, Chicama, Recuay and Cuzco are admirably shown. Dr. Lehmann derives the culture of Peru from Mexico—resemblance to the Northern culture he points out. In this he is in agreement with Dr. Uhle. To ethnologists, Plate 39 is of great interest, showing a pottery representation of the decapitated head of an enemy kept as a trophy like the Jivaro and Mundurucu custom. It is a pity that a view of the full face is not given as well, as the plate does not show the lips closed with thorns as the author mentions. However, Plate 35 (upper) shows a painting of a head with lips closed with thorns, while Plate 21 (lower) shows a bowl with a frieze of heads with cords for attachment. It is of interest that skulls with holes



in the forehead for the attachment of cords have been found at Nazca. The custom of thus treating enemies' heads could not have been peculiar to south Peru, as pots appear in north Peru in region of Trujillo showing heads in hands of warriors; but no actual heads have been found in cemeteries in these parts, to the knowledge of the reviewer.

The author throws no light on the cause of the striking difference in art in north and south Peru—why the northerners, especially at Chicama, should have excelled in the fine realistic modelled ware, while the south specialised in conventionalism and brilliant polychrome painted ware at Nazca and Tiahuanaco. Nor does he help in the chronology of the various cultures by his extremely obscure chart, which is quite unintelligible. The series of Inca vessels from Cuzco, rare in museums in this country, are of much interest. The two lower on Plate 91 remind one of the pottery of fragments of Inca period found at Kasapata, on the Island of Titicaca, by Bandelier. The realistic Inca pottery of this date is rare. It would be of interest to find out if these realistic pottery motives are earlier or later than the better known entirely geometrical designs on most Inca pottery. On Fig. 89 (lower) appears the queer little insect, which is shown again on the mastic and wood *paccha* published by Mr. Joyce (*J.R.A.I.*, Vol. 52, p. 141). This was obviously late, as are all these mastic and wood objects, chiefly beakers, which have butterflies, etc., on them; in fact, mostly post-conquest. This seems to indicate that the pottery thus decorated is also late. The pottery of Recuay, which Dr. Tello considers archaic, requires an exhaustive study. The treatment of the painted decoration seems to be by the lost colour process so well known in south Costa Rica and Panama, and it is only by scientific investigation which Dr. Tello is so fitted to carry out that we can learn the secrets of that region. It is to be hoped he will be enabled to do so.

It is exasperating to think that more digging for treasure, etc., for sale has gone on in Peru than in any other part of the world, and less scientific excavation. Museums are full of pottery from Peru without any scientific value, for want of information as to their provenance and associated objects.

It is to be hoped that this book, with its quantities of beautiful illustrations, will spur on would-be excavators to undertake serious work in Peru, where, I am sure, such work would be welcomed by the Government if undertaken in a scientific manner.

LOUIS CLARKE.

### Africa, East: Ethnography.

Ingrams.

*Zanzibar: an Account of its People, Industries and History.* By the Zanzibar Local Committee of the British Empire Exhibition. 1924. **109**

This is a brochure published to interest the public in the exhibits of the Zanzibar section in the East Africa Pavilion at the Exhibition. Many of the Colonies have issued similar pamphlets, and they vary greatly in outlook. Some confine their information to the economic side, for obvious reasons, others have issued publications more varied in scope.

The one now under review, however, easily stands out. Its academic character, the chapters on the ethnology of the island kingdom and its history, are worthy of a more permanent setting. May we hope that Mr. Ingrams, to whose research these sections are due, will amplify them in book form without undue delay.

The chapter on agriculture in the Protectorate is also of interest, but is all too brief.

The bibliography at the end of the brochure is an interesting feature, and one that should prove of value to students who are interested in the history of the East African coast.

C. W. H.









FIG. 1.



FIG. 1A.



FIG. 2.



FIG. 2A.



FIG. 3.



FIG. 3A.



## ORIGINAL ARTICLES.

With Plate K.

Africa: Ethnography.

Chubb.

**East African Masks and an Ovambo Sheathed Knife.** By **110***E. C. Chubb. With Plate K.*

The accompanying illustrations (Plate K) are photographs of three exhibits in the Durban Museum which appear to be of sufficient interest for description.

The first two are masks worn by natives of the Lindi District of Tanganyika Territory during circumcision celebrations; and the third is a dagger and sheath, of unusual form, worn by military leaders of the Ovambo tribe of South-West Africa.

Fig. 1.—This is a hollow spherical mask of soft wood, very regularly formed and ornamented with tattoo markings. It is uniformly stained with red ochre. The incised tattoo marks are black. The hair is represented by actual hair fixed on by means of some glutinous substance. The eyes are represented as nearly closed, and there are no openings in their region for the wearer to see through. The only holes are in the position of the nostrils. It might be possible to see through these. This mask was presented to the Durban Museum in 1917 by Mr. H. W. Dowall, who described it as belonging to the Makonde Tribe of the Lindi District of Tanganyika Territory. But on enquiring of the Acting Senior Commissioner of the Lindi District, Mr. C. R. Cadiz, I am informed that, on account of its having the neck piece, or collar, and half-closed eyes, as well as by the form of the tattoo marks, he considers it belongs to the Wamahiha, an offshoot of the Wamakonde, who are mainly settled in Portuguese territory, only a few living north of the Rovuma, in Tanganyika. He was good enough to send me a typical Makonde, female, mask, with the "Ndonya" or lip-ring well represented. This is shown in Fig. 2. Unlike the Wamahiha mask above described, it represents only the facial portion of the head, and has holes at the eyes and mouth. It is coloured with red ochre; but the hair region, tattoo marks, and lip-ring are black, and the representation of a large plug in the lip-ring is white.

Mr. Cadiz informs me that at the conclusion of the circumcision celebrations, and the night before the boys return to their respective villages, the relations and friends gather at one of the elders' villages, and there the dance of the "midimu" (spirits) is held. The Kimakonde name for a mask is "mdimu," which also has the general meaning of "spirit or something supernatural."

There are several kinds of "midimu"—the Ape, the Snake, the man with a woman's breasts, the man in the tree top (on stilts), etc., etc.—and each has its appropriate dance. The night chosen for the dance is always when the moon is well on the wane, so that it may be as dark as possible. About 7.30 p.m. the guests begin to arrive, and seat themselves in a semi-circle facing the boys who have recently been circumcised, an open space being left for the dancers. The dancers, twenty to thirty in number, have meanwhile gone off into the bush to prepare for the ceremony. In olden days, when customs were more strictly observed, the identity of the dancers was carefully concealed from the boys and women. Having made all necessary preparations, the dancers, wearing masks and dressed up in fantastic fashion, some mounted on stilts, others on all-fours, or riding on the shoulders of companions, gradually approach the spot where the guests have assembled for the entertainment. The dancers come forward one by one, singing songs of praise or derision of someone in the assembly, and, having arrived at the open space left for the purpose, prance about much to the delight and feigned terror of the women and youngsters. If the dancer satisfies the somewhat critical audience, he is given a chicken or "thumini" (50 cents), or some other



small reward. He then makes way for the next one, and so on until the small hours of the morning, when the dance is brought to an end.

Fig. 3 is a dagger and sheath which is worn by military leaders of the Ovambo tribe of South-West Africa as a token of rank. The dagger measures  $5\frac{1}{2}$  inches in length; the blade is of iron, and the short haft is of wood, covered with sheet copper on the lower part and with twisted, square, copper wire on the upper part. The sheath is of sheet copper in the form of a sector, measuring 12 inches long at the base and 5 inches high. Except for a small portion at the base and summit, it is covered with twisted copper wire, square in section, bound horizontally. Inserted in the summit is a wooden portion to receive the blade of the dagger, and fastened to it is a short leathern thong, for attachment to a belt, presumably.

E. C. CHUBB.

## Polynesia: Religion.

**The Polynesian Word *Atua*: its Derivation and Meaning.** By Ivens. 111  
*The Rev. W. G. Ivens, D.Litt. (Continued from MAN, 1924, 101.)*

### PART III.

#### 4. The Meanings of *Atua*.

(a) *Some meanings of *atua*, other than "God."*—If the derivation of *atua* from *tua* be accepted it is evident that an idea originally associated with it, and still surviving in places, is that of the Mota *tataro* or *tamate*, "ghost" or "ancestor." But in the dictionaries the first meaning of *atua* is invariably "god." Thus the Samoa dictionary has *atua* (1) a god; (2) God, and the Maori begins with "God" as the first meaning of *atua*. In the *Journal of the Anthropol. Institute*, 1909, p. 159, Dr. Rivers shows that in Samoa the word *atua* was used to designate what were practically totems. In Tonga he was told that "each family had its *otua*, some of which were animals and some stones, while a man might also be an *otua*. Of Tikopia he records the fact that the people "call a number of animals *atua*, a "word which they also use for an ancestor."

Te Fonu, a native of Nifilole, a Polynesian colony in the Reef Islands, near Nukapu, where Bishop Patteson was killed, was reported by Bishop John Selwyn as saying that the sickness that raged in Nukapu following upon the return of the four men who were abducted in 1871, and who found their way back there from Fiji, was caused by the *atua* of Bishop Patteson.

In Maori *atua* can also definitely bear the meaning "ghost." Archdeacon Williams writes: "I have an old example when a woman supposed to be dead "turns up—and the remark is made that it is Hinepoupou *atua*, not Hinepoupou "tangata."

The "Hawaiian Dictionary" gives "spirit" as the rendering of *akua* in the phrase *akua-au-makua*, "the ancestors of those who died long ago and who became "gods—the spirits of former heroes." In the dictionaries we find such a secondary meaning as "a marvel," "a portent," "something extraordinary to the native "mind," and herein we definitely approach secondary meanings of *vui* (Mota), *tindalo*, "Florida"; 'akalo, Sa'a.

(b) *The Fijian word kalou.*—The use of the word *kalou* in Fiji for "God" may perhaps be taken as a proof of Dr. Codrington's statement that "any personal "object of worship amongst natives in all parts of the world is taken by Europeans "to be a spirit, or a god, or a devil." Mr. Hocart wrote of the word *kalou* (*Journal Anthropol. Inst.*, 1912) that those who were responsible for fixing the meaning of it completely mistook its meaning. Dr. Hazelwood in the "Fijian Dictionary" has "*kalou*, a god," whereas Mr. Hocart has proved conclusively that it means no



more than the Mota *tamate*, dead person, ghost, spirit. Dr. Rivers suggests (*Mel. Society*, ii, p. 414 n.) that *kalou tataro* (Florida *tindalo*) by the interchange of *t* into *k* and *r* into *l*.\*

Methodist missionaries in New Britain following the Fijian practice taking *kalou* as "god" have used it in the Bible translations.

While we cannot say altogether of *atua* what Mr. Hocart has said of *kalou*, for we are dealing here with Polynesians and not with Melanesians, yet we can at least say with certainty that the primary meaning of *atua* is not 'God' or "a god," even if we allow it to possess the meaning of "god" at all. Also we can say that the use of *atua* in the Scripture translations as the equivalent for "God" is unwise from the point of view of theology, as it is certainly ill informed from the point of view of ethnology.

(c) *Use of atua in Maori*.—Archdeacon Williams, the compiler of the last edition of the "Maori Dictionary," in a letter to the present writer says: "In an investigation of this sort (i.e., as to the meaning of *atua*) we must be on our guard against being misled by conceptions we have grafted on to the word which are not essential to it. After it was printed I regretted I had put down 'God' as the first meaning of *atua*—as I doubt whether what we deem 'God' is what the word connotes to a Polynesian. We may get quite off the tracks if we try to find a root suggesting god-like attributes. We must eliminate the idea of deity from the investigation. . . . In Maori the mythical personifications of natural phenomena were termed *atua*. But it was perhaps a pity to have adopted that word for 'God.' The existence of a belief in a supreme deity *Io* has lately come to light: but that was emphatically esoteric—the rank and file, I am satisfied, knew nothing of the cult, and many not even the name. So even had it been available there might have been difficulties too with *Io*."

(d) *Mythological Tales of Heroes*.—The abundant mythological tales of heroes in Polynesia need not blind our eyes to the human origin of some at least of them. Ellis "Polynesian Researches," vol. I, p. 328, speaking of Tahiti says: "The gods of the ocean probably were men who had excelled their contemporaries in nautical adventure or exploit and were deified by their descendants." Williams, "Missionary Enterprises," p. 110, says that "Ruanuu, a chief from Raiatea, sailed ages ago from there and died and was deified as *Te atua taitai tere*, the conductor of fleets." Williams also seems to hold generally that the "gods" of Polynesia were "deified ancestors" (*op. cit.*, p. 543).

In an investigation into the meaning and use of such a word as *atua* we must not be led aside by any desire to philosophise the mythological tales of the people, or to find an esoteric meaning in them as their primary content.

The Melanesian peoples have not attained to the higher levels of thought in matters pertaining to the cosmogony of the universe which the Polynesians have attained, nor have they peopled the heavens with such a pantheon as have their Polynesian brethren, but just as students of Melanesian languages claim that the Melanesian languages present an older form of what was once the common tongue of the two peoples, so the investigation of such a word as *atua* would seem to show that in the beginning the religion of the two peoples was one and the same, viz., ancestor worship.

WALTER IVENS.

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\* This is wrong. Florida and Fiji have *t* in the same words, e.g. *tolu*, three; *tadhi*, sea; *tama*, father; *tambu*, prohibition are equally Florida and Fiji words. Also Fiji *k* is *g* in Florida *kau*, Fiji *gai*, tree; Fiji *kutu*; Florida *gutu*, louse, etc. Fiji has *tataro* in the same sense as the Banks Is., etc. *tataro*, in the expression *ndau-tataro*, a mediator or intercessor; in Banks Island the equivalent is *i tataro*.—S. H. RAY.



## America, North: Ethnography.

Parsons.

**Tewa Mothers and Children.** *By Dr. Elsie Clews Parsons.*

112

Measures to promote conception and childbearing are common among the Hopi and Keres and at Zuni; but in the Tanoan towns I have still to hear of any. Tewa women have stated positively that there was nothing for a woman wanting a child to do. Nor for a woman not wanting a child. And yet a woman of San Juan whose children were born well spaced out said that she would remark to a certain woman who had been having a child every year, "You don't have good times." There is at Santa Clara a prophylaxis against twins. A girl who passes by a dog lying down in the house or by a bow and arrow laid on the floor or a gun, will have twins; and so, as twins are not desired, the thing to do is to chase the dog out or go around him, and to go around the carelessly dropped weapons.

A pregnant woman should sweep her dust out of the door quickly, not dallying. Nor should she linger about the door, going in or out. She should not start to go out and then not go. Should she behave in these ways, not sweep quickly or go out promptly, the unborn child will start out and then draw back or take a long time to come out. (San Juan). Similarly, were the prospective mother to peep out of door or window the baby would "look out [on the world] and go back." (Santa Clara).

A pregnant woman will carry a key or a stone in her belt, something hard, "so the Moon won't eat the baby." The moon in eclipse is thought to eat the unborn child, causing deformities of mouth or foot or hand. A certain San Juan man was born without toes, because, they say, the Moon ate his foot. Another man has no finger nails, and again they say the Moon ate his nails. So at eclipse, "when the Moon dies,"\* they tell a woman not to go outdoors. (San Juan). That night she should not sleep much. Her mother should watch for her, going out to see "when the Moon is alive again." It is only the night of eclipse that, at Santa Clara, the prospective mother carries something, a key or ring, in her belt.

There is no albinism among the Tewa, and so no theory of it. There are no pregnancy taboos on the father, as elsewhere in Pueblo circles.

Eight or nine times before the birth the expectant mother bathes every four days; after the birth she bathes on the fourth day, on the eighth, on the twelfth, etc. That Mexican women do not bathe for a month after the birth seems strange to the Tewa woman, and more than questionable.

During the first half of the month after the birth some women drink water that has been boiled;† then, during the second half, water that has been warmed only. Other women drink cold water only. During all this time watermelon and peaches are not eaten, "because, they say, they are cold."‡ Women are supposed not to sleep with their husband for one month after the birth of a daughter, for forty days after that of a son.

The mother lies in three days; on the fourth day she is up,§ and the infant is named. The attendant aunts, maternal or paternal, give names—"the *kaiye* (mother's older sister, San Juan) or *ko'o* (mother's younger sister) will give a name, the *ki'i* (father's sister), too." One of these women, the *ki'i*, who becomes the *tsitsayiya* or navel mother, will carry the baby out at sunrise. The mother goes too.|| Both

\* "The Sun dies" is said of solar eclipse, as elsewhere.

† This is a practice of the Tewa of First Mesa also. See MAN, 1921, 58.

‡ Cp. MAN, 1921, 58.

§ The day of birth is counted and the day of getting up. Were the birth on a Friday, the mother would get up on Monday.

|| Unless she happen to be a Mexican. A case was cited of naming the child of a San Juan man and a Mexican woman behind the mother's back. The paternal relatives waited until the Mexican mother was engaged in taking the customary bath at the end of her month's confinement, then, unknown to her, they named the baby. (A striking illustration of Pueblo



women turn around four times, in anti-sunwise circuit. Another woman, *kaiye* or *ko'o*, goes along, carrying a fire stick and a broom. A circular sweep is made with the broom and a cutting or slicing motion (*peri*, blow as the wind does, which is exorcism for both mother and infant) and the fire stick is cast away. The baby is then carried indoors and bathed all over by the navel mother, and she and each visiting kinswoman give a name. In the bath-water is placed a fetish-stone or shell, *oga*, a cowrie shell; or *tinini*, an *olivella* shell; or *tsiowénu ku*, lightning stone, i.e., an arrow or spear point; or *kayé*, as are called the fetichistic stone images of bear or mountain-lion. The navel mother takes a mouthful of the water from an abalone shell and with the water still in her mouth breathes in along the corn ear, *kyliohatsiperi* (*ky*, corn; *lio'* ?; *ha*, heart; *tsiperi*, blow) the rite is called. Then the ear is waved in the six directions; and the navel mother ejects the water from her mouth into the mouth of the infant. This rite is repeated for the second ear of corn. Then the navel mother breathes out on the infant. The third woman in the sunrise group repeats the whole ritual. It is the navel mother who furnishes the bowl, the fetich stone, and the two ears of corn . . . They thank the aunts, and give them stew and bread to take home. The two ears of corn used in naming (*kyriohatsipe*) are left on either side of the infant for ten or twelve days, "*kydio-ányima*, corn-taking-care-of-baby." This corn, of which the ear is completely kernelled, is planted the year following. Such completely kernelled ears (*kukayee*), which are sacrosanct, are used so that the baby will grow up perfect like the corn ear.\*

In case a member of the curing society (*pu'fona*) is called in for a difficult delivery, the infant is named by the *pu'fona* or doctor.

These naming practices are those of San Juan. At Santa Clara the use of shell or fetich stone in the bath water appeared to be unfamiliar, and the corn ears are left alongside the infant for but four days. Of the practices in San Ildefonso and the other Mexicanised towns I got but meagre account.

In all the towns there is also a Catholic christening. Within a week or two of the birth the infant is taken to church "for his Mexican name," by his *madrinha* or *popoyiya* (wet head mother) and his *padrinho* or *popotara* (wet head father). The same persons continue to serve as Catholic godparents to a family unless a godchild dies, when new godparents are called for. Possibly a like rule holds for the "navel mother" in the native ritual.

The placenta is thrown into the river.† For a girl, after the cord dries up and drops off, it is buried very deep near the grinding stone, so that when she grows up she will not be lazy; for a boy, it is buried in the field, "so he could work."‡

If the navel "waters," dust from the rafters is rubbed on. Between sore navel and snake bite there is no association as in other pueblos. The mother of an infant with sore navel will not eat eggs or beans.

Were a menstruating woman to hold a baby it would make the baby's skin rough and spotty, and the baby, irritable. "I wonder why the baby cries so?" somebody might ask. "Because of so-and-so, she was menstruating," somebody might

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Indian secretive tenacity!) In another case, the child did not get her Indian name until she was two and a half years old. This, too, was given surreptitiously (by her father's mother's brother's wife) . . . "We always hide things from Mexicans because they are mean."

\* Cp. Laguna, MAN, 1919, 86. According to Cushing (unpublished MS.) an ear of corn, completely kernelled and white, is left alongside the Zuni boy baby, and a dark, flat (i.e. branching at the top) ear, alongside the girl baby. Recently I saw a new born boy baby at Zuni lying on his hot sand bed, with an ear of white corn on either side. This is the Hopi practice also. See MAN, 1921, 58.

† Cp. for Laguna practice, MAN, 1919, 86.

‡ Cp. for Laguna practice, MAN, 1919, 86.



answer. So no woman during menstruation is allowed to carry a baby. Lard and powder are used to allay the irritation of the skin.

I heard of a woman in confinement who had not enough milk for her infant. She wanted medicine, but nobody knew what to give her. "We used to know, but we don't know now," a comment, familiar in other connections also, on the disintegration of tribal culture of which the people are frequently aware.

To make a child able to talk early one may put a stirring stick (*wipe*), still warm from use, into his mouth and stir it around. The stirring circuit shown by my informant was anti-sunwise. (This cook stick is used in making *sa'kawe*, which is flour stirred with milk or chili). The practice, familiar elsewhere, of holding a mocking bird to the child's mouth to induce the gift of tongues was unfamiliar at San Juan.

Sick infants or children are "given," as among the Hopi,\* to one or another of the ceremonial organisations. The present Winter Chief at Santa Clara was thus given to the Winter People's ceremonial group when he was sick in boyhood. Now and again, boy babies were vowed by their mothers to the *kuirano* of San Juan; the practice is lapsing. The *kossa* or clowns of Santa Clara are recruited also by dedication in sickness or even before birth.

The first teeth are thrown to the Sun. A child may say, "Mother, I took my tooth out." The mother will rejoin, "Keep it until to-morrow morning and let me give it to the Sun, so he will give you a new one." At sunrise the mother takes the tooth out and throws it to the Sun, asking him to give a new tooth. When the next tooth erupts, the child will say, "Mother, the Sun has given me a new tooth."

*Tsabiyu*† is the children's bugaboo. "*Tsabiyu* will come to whip you or to take you," the old people will say to a refractory child, or to a crying child; "*Tsabiyu* will hear you from *k'osena*," his home in the eastern mountains. And a child may be told that *Tsabiyu* has said that he has ears in the chimney.‡ "Knock and I will come," says he. So to a crying child or to a lazy one, a mother might say, "I am going to knock on the chimney." "Don't do it, mother," begs the child. The mother may go so far as to pick up a stick to tap with. When it looks like snow in the eastern mountains, people say to the children, "*Tsabiyu* is coming;" or, after snowing, they say, "*Tsabiyu* is under the snow, he won't come." At the Christmas-tide dances *Tsabiyu* actually does appear. There are two of him, one a man of the Winter People, wearing a white shirt and in white mask; the other, a man of the Summer People, in yellow shirt and black mask. Over their mask, a wig, and under it, a collar of foxskin. They wear trousers and shoes, and carry a horsewhip and a sack. They chase the children, and they visit from house to house to collect bread for their sack.§ As early as November people begin to tell the children that *Tsabiyu* is getting ready his sack in the mountains.

Parents may punish directly, too. "Do what the old people tell you, else I will beat you," a mother might say to a child. And formerly no child would ever think of saying, as children say to-day, "What you pay me?" to a senior asking service. I heard of a man who did whip his two little boys when they had been "mean" to their sister. She and her brothers would be sent to the river, as used to be the practice, to wash their face, in winter through the ice, and on their way the brothers would tease—"boys are mean to girls."

Formerly, boys were not allowed to smoke before marrying or before going out to fight. "Why do you want to smoke? Have you killed a coyote (i.e., Navaho)?" a youth might be asked.

\* See MAN, 1921, 58.

† Referred to also at San Ildefonso as *Pewa sendo* or, in Spanish, as *abuelito*, little grandfather.

‡ For Hopi, cp. MAN, 1921, 58.

§ Like the Zuni *atoshle*.



The Santa Clara woman who opined that boys were mean to girls, and men, sometimes, to women—she had described her first husband as “an awful mean man”—this woman, now middle-aged, as a girl had learned to make pottery from an aunt who was a particularly good potter. The girl would visit her aunt and work with her. In craftsmanship, as in education at large, the Pueblo way is the way of apprenticeship.

ELSIE CLEWS PARSONS.

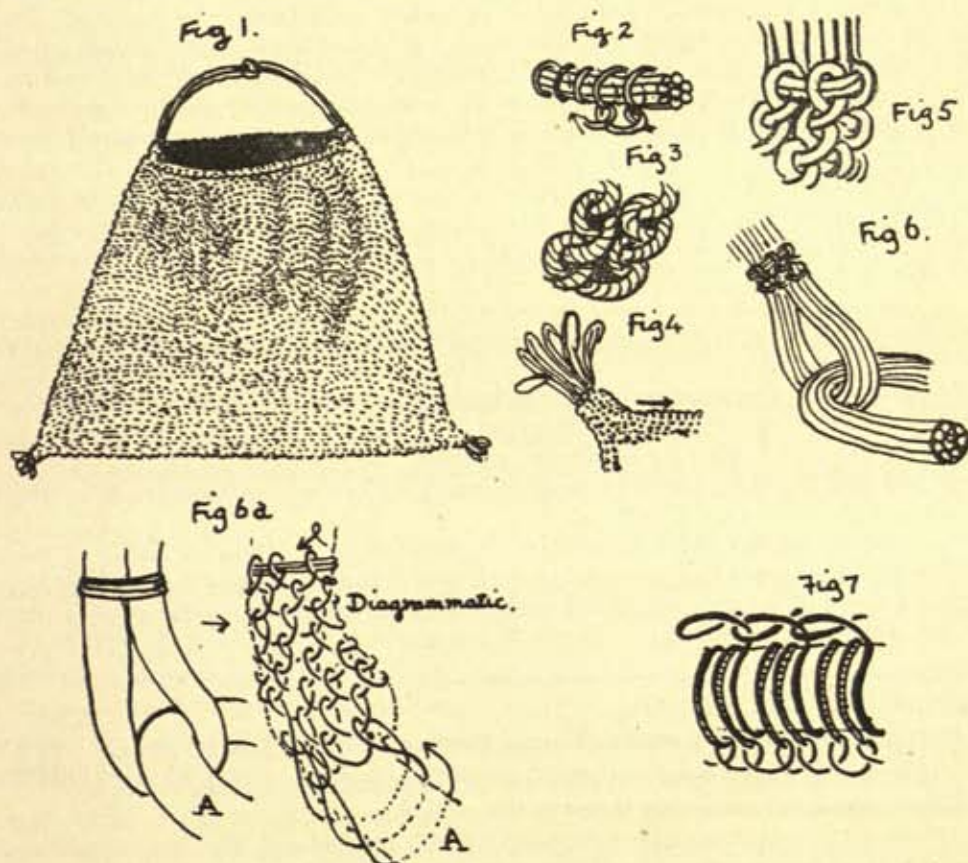
### Technology.

Thomas.

#### Netting without a Knot. By E. S. Thomas.

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MAN (1909, 20) contains a note under the above heading by M. A. van Gennep, in which reference is made to an article by Miss A. Werner, in which she appears to attribute its origin among the Angoni, where she discovered it, to their possible Bushmen ancestors. M. van Gennep shows that the technique is employed by the Warundi of Ruanda and that it is known to the Indians of Brazil



It is of interest to note that there is an example in the British Museum from Peru, and I am indebted to the Royal Geographical Society of Egypt for permission to describe a very beautiful example from Fazogli, which is in their Museum at Cairo. It is a bag (Fig. 1) of well-made brown bark fibre string, the flat width of base and mouth being 65 and 32 cm. respectively, and the height 40 cm. A core of cords forming the mouth was first closely coiled with string, through the turns of which the netting loops pass round and round continuously to the bottom (Fig. 2). Fig. 3 shows the appearance of the looping, natural size. It is so closely



and evenly netted that the technique is quite masked, and careful scrutiny is necessary to make it out. A handle is formed of lengths of cord passed to and fro across a diameter of the mouth, the ends finally knotted together. This is probably done before the preliminary coiling of the cords forming the mouth. At the bottom of the bag, while still open, tassels (Fig. 4) are made at opposite ends of a diameter in the same plane as the handle, by threading a length of cord back and fore five or six times. The tassel loops of one tassel are apparently continuous with the cord with which the bag has been netted. After making the tassel, the bunch of loops is wrapped round about half way up and then coiled (like the mouth) and netted over downwards, round and round (Fig. 5). On reaching the bottom the mouth is sewn (looped) up through the lowest loops, and the seam at the same time overlaid with loop netting in the same way as the mouth rim described below. A similar collar is then loop-netted about the second tassel in a similar way—from above downwards. The mouth of the bag is very skillfully and elaborately finished off with similar collars about the bases of the handle cords, and with an overlay of loop-netting round the mouth. Each collar is worked downwards, the first loops (as in the case of the tassels) being formed upon a couple of turns of cord bound round the handle two or three cm. above the mouth of the bag (Fig. 6). On reaching the level of the mouth, the loops at the back are drawn tight, but the looping is continued from the three or four loops in front along one edge of the mouth, the cord passing under the ring of cords forming the mouth (Fig. 6A).

A very neat overlay is thus formed over the rim, as far as the other handle base. A similar collar is worked upon the other handle base and along the other margin of the bag mouth. The ends of the cords are knotted to the adjacent collars when all is complete.

The mouth ring was closely bound by the coiled string to begin with; the under-passing cords of the overlay netting, in addition, makes it extremely tight and firm (Fig. 7).

After some 10 centimeters of netting, the loops ease out considerably, as indicated by the dimensions given. The result is that the mouth of the bag has the appearance of being drawn together by a running string.

The bag is a very masterly piece of work, and an admirable example of this doubtless primitive kind of netting.

A search in the Cairo Museum of Antiquities for possible examples of this technique in Ancient Egyptian string-work was rewarded by the discovery of the upper portion of a very loosely and roughly constructed bag or basket of osier, the loops being 3 or 4 cm. deep. The object is not dated. E. S. THOMAS.

#### Africa, Central: Religion.

**Notes on Utani and other Bondei Customs.** By Dora C. Abdy.

Abdy.

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*Utani*.—The word *utani* describes a close relationship subsisting between two families of the same clan living in the same district. The custom is said to be a very old one; it is known to exist among the Wabondei and Wazigua (inhabiting the lowlands between the Usambara mountains and the sea) and the Washambala and Wakilindi living in the Usambara mountains behind Tanga. All four tribes intermarry, and, though they speak distinct languages, they have many words in common, and the grammatical forms are alike.

The verb *kutána* means "to condole," "to sympathise with." Two families which stand in the relation *utani* to each other are said *kutanana* (reciprocal form of the verb). Only families descended from a common male ancestor can *tanana*.

As soon as a child is old enough to understand, his father tells him:—"Mlango " *wa* — (naming a family) *ni utani wako*," "the door of — is your *utani*."



All the members of the one family must be ready to help the members of the other. But, more particularly, the head of the one family is *mtani* to the head of the other family and all his descendants, and each of them is *mtani* to him. A man has considerable authority over a child to whom he is *mtani*; he may even hoax the child by saying: "Your father is dead," and the child must not resent it. If a member of the child's family really dies, the *mtani* must come and say words to this effect: "I am very glad; I bewitched him so that he might die; I wanted the "goat's head" (that is, the head of the goat sacrificed at the funeral, which is the *mtani's* portion). But after this prescribed fooling he may show his real sorrow.\* If the *mtani* spits on a plantain belonging to the child, or on a garment or any of his possessions, he claims it for himself; but the child may redeem it for a trifling sum. If a *mtani* proves very oppressive another may be chosen, but always from the same family.

Although this one member of each family performs the actual functions of a *mtani*, all the members of the two families are *watani* to each other; the grandchild of one family is *mtani* to the head of the other. The women of the two families are also allowed to *tanana*, but they seem to think very little of it.

The families are *watani* from generation to generation. When the head dies, the eldest child becomes the *mtani*: if the eldest is a woman, she hands on the duty to the next male, though it is possible for a woman to be a *mtani*. If the proper *mtani* is ill or absent when his services are required, one of his sons or brothers is asked to act for him.

A member of an alien tribe living in one of these districts can establish a blood-relationship with the head of a family by scarifying his chest and giving his friend some of the blood to drink, whereupon his friend does the same—"kuchanjiana damu." As soon as this is done, all the *watani* of his friend become the *watani* of the alien. Very often, however, a Bondei or Zigua man refuses to admit the alien to this relationship.

The *mtani* seems to have two principal functions: (1) to kill any inconvenient members of the other family, for instance a leper, or a *kigego* child (a child which cuts its upper teeth first); and (2) to take the leading part in the funeral ceremonies for any of his *watani* on the day when the mourning is finished.†

On that day the *mtani* kindles a fire, and is given *msanga*, that is, a white cloth, generally one of the strips of calico given for the grave-clothes of the dead person. After girding this cloth round his loins, he takes two hoes, and kindles a torch at the fire. The mourners stand in order round a cleared place; the *mtani* goes seven times round the circle and then runs out of the village clashing the two hoes and carrying the torch. He hides all three at some distance, and comes back saying: "Now I have chased away the spirit" (of the dead man), "now he has gone to join his companions at Mlunga." (The hoes may be reclaimed next morning.) The *mtani* then comes back into the middle of the circle of mourners, and the men say to him: "We want a clear space so that we may finish our mourning." After a great deal of argument it is agreed that the drumming shall begin, and men and women alike dance in the cleared space. This funeral dance is called *ukala*, and the first verse sung is always this:—

"tambala, tambala,  
mkoma nyingi na Mulungu.  
unu wa Seuta neugone ntongo,  
tambala, mkoma nyingi na Mulungu.  
Seuta gona ntongo,  
ee unu wa Seuta neugone."

\* If a man were really to bewitch or poison any of his *mtani*, he would die himself

† See also under *Mzimu* and under *Matumbwi* and *Kigego*.



"Go on, go on,  
 All deaths are from God.  
 This thing of Seuta let it sleep soundly.  
 Go on, all deaths are from God.  
 Seuta sleep soundly,  
 Oh thing of Seuta, sleep."

(The informant, Walter Nguruko, could not tell me who Seuta is, but I believe he is an ancestral spirit of the Bondei. Old things are called "things of Seuta.")

Next morning, the *mtani* divides and distributes the personal belongings of the dead person. If the death has been "a bad death" (for instance, from leprosy or small-pox), the *mtani* takes everything—bedstead, blanket, and clothes—because it is supposed that he cannot be infected with the disease.

After this a goat is killed. The *mtani* holds the legs, a brother or relation of the dead man on the father's side holds one ear, and a brother or relation on the mother's side the other ear. Each man in turn mentions the dead man's name, saying: "So-and-so, go and rest; here is your ox." (If the man is rich, an ox is really killed, but generally one or more goats are substituted; the words used are always the same.) Then a Mahomedan cuts the throat of the goat, saying: "Bismillah"; this is a modern innovation. The goat is divided up and cooked for a feast for all the mourners. The *mtani* receives the head and neck, which is considered to be the best portion, to take away with him.

Then there is a ceremonial cleansing. All the mourners stand in order; first the wife of the dead man, then his father and mother, then his children in order, and so on. The *mtani* brings an earthen bowl full of water and a bunch of leaves of the *kongo* tree, and, while the mourners stand in dead silence, he sprinkles them one by one, first on the forehead, then, successively, on the breast, the backs of the hands and the insteps. The more distant relations or friends may just dip their hands in the water.

After this the mourners may go home. The *mtani* gives the white cloth (*msanga*) to the brother or cousin of the deceased who is chosen to inherit the widow, that is, to add her to the number of his wives.\*

DORA. C. ABDY.

(To be continued.)

## REVIEWS.

### Archæology.

W. J. Sollas.

*Ancient Hunters and their Modern Representatives.* By W. J. Sollas, 115  
 Professor of Geology and Palæontology in the University of Oxford.  
 Third Edition. London: Macmillan, 1924. Pp. xxxvi + 697. Figs. 368. 25s. net.

Almost twenty years ago Professor Sollas gave the happy title of "Ancient Hunters and their Modern Representatives" to a course of lectures delivered in the Royal Institution. In 1911 he threw these lectures into book form; the book succeeded, and the success was deserved, for its author has the high art of popular exposition—the art of telling in plain words what scientific men are thinking and doing. A call for a second edition in 1915 gave him an opportunity of bringing his text up to date. And now a third edition has appeared—greatly swollen—too heavy to be held in the reader's hand were it not that the entertainment provided makes one forget its weight.

\* Walter Nguruko, the old man who gave the greater part of this information, had just been doing a penance (as a Christian) for having allowed his *mtani* to carry out the heathenish part of these ceremonies at the funeral of his (Walter's) son Lambert.



An announcement in bold type on the "jacket" of the new edition prepares the reader for what is in store for him:—

"The general acceptance of the presence of some member of the human family in Europe at an age far more remote than has hitherto been admitted—in the Pliocene as shown by Mr. Reid Moir's discoveries, or even the Miocene as would appear from the evidence provided by the late Mr. Westlake—has completely changed our perspective."

There can be no doubt there has been nothing less than a revolution in the "perspective" of Professor Sollas's historical outlook; to put the matter vulgarly, he has been "going the pace." We have been accustomed to regard him as a stout opponent of the humanity of eoliths and of sub-crag implements. In 1915 he gave what must have seemed to his readers a most satisfying and final explanation of eoliths:—

"In deposits which contain supposed eoliths many stones will be found with bold flaking suggestive of human agency, but of a form which is inconsistent with this suggestion, and evidently excludes them from the category of artefacts; on the other hand, some will be found with a suggestive form, but devoid of characteristic flaking. The collector will naturally reject all these specimens. On the other hand, in such an assemblage a certain number of examples may exist in which both suggestive form and flaking are combined. These are the specimens which the collector will select, and it is on their evidence that the intervention of human agency is claimed."

"The argument may be extended to the rostro-carinate forms. For these examples do indeed bear witness to intelligence, *but it is that of the selector, not of the fabricator.*"—(2nd Ed., p. 84).

It is plain, from the concluding phrase of this extract, which I have taken the liberty of italicising, that not long ago Professor Sollas held a very decided opinion regarding the cruder implements ascribed to early man: the arguments for their humanity lay in the gaze of the selector or collector; collectors were the dupes of their preconceptions. In the present edition Professor Sollas has courageously abandoned his psychological explanation of eoliths, and in this change of opinion he is in good company. Professor Breuil, when he visited Ipswich in 1912, denied the humanity of Mr. Moir's sub-crag implements; he came back in 1920 and admitted that they had been shaped by human hands. Then in 1922 came the Franco-Belgian Commission and gave Mr. Moir's contentions its support. Professor Sollas now also makes full amends:—

"The Pleistocene deposits of East Anglia, which have long been distinguished by the perplexity of the numerous problems they present, have lately proved an unexpected source of information, thanks to *the illuminating researches of Mr. Reid Moir.*"

The last phrase I have italicised; it deserves to be. But our author scarcely rises to his usual level of justice when he relegates to a footnote Mr. Lewis Abbott's discovery of worked flints in the Cromer beds—a discovery made so long ago as 1897.

From being a persecutor of eoliths Prof. Sollas has become their champion. Their constancy of form over long periods, instead of militating against their humanity, as he formerly believed, is now altogether in their favour, for we must expect the brain of early man to be sluggish. Professor Sollas is now prepared, as evidence of his changed attitude, to accept the eoliths found in the upper Miocene deposits of Puy de Courney (in Auvergne) as humanly-worked flints. In 1915 Puy de Courney flints were rejected because the geological mind could not conceive the possibility of man being a member of the upper Miocene fauna; it was supposed that man would be



out of place in such a fauna. Professor Sollas has now thrown this faunal argument to the winds. He has studied Mr. Westlake's collection of Puy coliths; he has visited Puy and studied the coliths *in situ* and the conclusion reached is worded thus: "I have myself hesitated for a long time before arriving at a conclusion, but "in the present state of our knowledge I think the balance of probabilities points "to the conclusion that these coliths are the work of an intelligent being" (p. 98, 3rd ed.). An intelligent being who needs implements and can shape them, we may assign, I think, to the human family. And he had for company the three-toed horse—if Professor Sollas has reached a true conclusion.

If in certain directions Professor Sollas has been progressive and liberal, there are other directions in which he has been a little less than liberal—nay! almost niggardly and retrograde. Time was when he studied the deposits of the Pleiocene and Pleistocene periods with the highly laudable object of forming an estimate of the duration of these periods. It has become the fashion in certain Academical circles to regard any attempt to estimate the length of geological periods in terms of years as unscientific—as mere pandering to vulgar curiosity. It is a great misfortune to British geology that Professor Sollas should have come under this sinister influence. In only one passage, and in only an incidental manner, does Professor Sollas give us a glimpse of his inner thoughts regarding the duration of the Pleistocene period. In this passage he speaks of estimates of 300,000 and 400,000 years as "short-time" ones—from which one infers that in Professor Sollas's opinion these are under, rather than over, the mark. In the matter of time estimates, his attitude is one of pure negation: "No dates," he writes, "can as yet be safely "assigned, and to venture upon speculation on this matter would in all likelihood be merely to add to the hecatomb of errors which De Geer so clearly foresees." We could wish that the Professor of Geology in the University of Oxford had faced the strictures of his distinguished Swedish colleague, Baron de Geer, with the courage which has carried him so successfully through the perplexities of the colithic problem. In the matter of chronology, the geologist must hold the honourable office of pace-maker and time-keeper; the anthropologist must depend on him for a system of reckoning geological time. In 1915 Professor Sollas used the river terraces to "divide the Pleistocene or Quaternary epoch into seven ages, the first, second, "third and fourth glacial ages, with their three intervening genial ages" (p. 29, 2nd edition). He did not thrust on his readers the somewhat clumsy nomenclature proposed by the late Professor James Geikie; nor the uncouth terms—"Günz," "Mindel," "Riss" and "Würm"—introduced by Professor Penck and he has thus spared his followers the sad confusion which has arisen over the use of these terms. Having avoided this error for so long he has, in the excess of his vitality and youthfulness, fallen away from grace in the present edition of "Ancient Hunters" by introducing Professor Depéret's forbidding nomenclature. He proposes to divide the Pleistocene period into four ages, not in terms of glaciations but in terms of raised sea beaches and valley terraces, both of which are somehow directly related to periods of glaciation. The reader has to accustom himself or herself to speak of the deposits of our 50-foot Thames terrace as "Monastirian"; the deposits of our 100-foot terrace as "Tyrrhenian," and of the two still higher terraces as "Milazzian" and "Sicilian." Why not name the terraces according to their average levels—in place of using these fantastic terms which carry with them only the simulacrum of learning?

We have already quoted with approval Prof. Sollas's statement concerning the "perplexity of problems" concerning the Pleistocene deposits of East Anglia. He returns to them in his final chapter entitled "Chronology." He recognises, as everyone does, that the section of these deposits at Hoxne is of critical importance and we, therefore, expect him to handle all the facts connected therewith in his



most exact and critical manner. In the second edition (p. 551) the deposits at Hoxne are stated thus:—

Acheulean industry.

Cold climate (*Betula nana*, *Salix polaris*).

Temperate climate (*Alnus glutinosa*, *Rosa canina*).

Glacial climate, chalky Boulder clay.

In this list the Acheulean industry is separated from the deposition of the glacial boulder clay by the intervention of a mild and then of a genial period. This is in exact correspondence with the account given in 1896 by the late Mr. Clement Reid in his report to the British Association. But in the present (3rd) edition (p. 640) the list of deposits or strata at Hoxne reads thus :

Loam and sands.

Cold climate (*Betula nana*, *Salix polaris*).

Temperate climate (*Alnus glutinosa*, *Rosa canina*).

Acheulean implements.

Glacial climate, chalky Boulder clay.

It will be seen that between the 2nd and 3rd editions the Acheulean industry has slipped down two strata—strata which represent a cycle of change from warm to cold. Professor Sollas does not explain to the reader how or why the Acheulean industry has become transposed. He still quotes Mr. Clement Reid's report of 1896 as the source of his information and assuredly this report leaves no doubt as to the Acheulean horizon: it was given rightly in Professor Sollas's second edition. It is true that if the Acheulean horizon does lie below the Arctic bed it will fit more comfortably into Professor Sollas's new classification of deposits. It may be that the excavations which Mr. Reid Moir is now carrying out will show that Mr. Clement Reid was mistaken, but in the meantime we must take things as he found them to be in 1896—namely, that the implements were in the brick earths above the Arctic bed, however difficult it may be to fit this fact into a preconceived theory.

There are a few minor points in the 3rd edition which are open to criticism or alteration. On p. 240 occurs the statement: "The distinguished anatomist, Professor Schwalbe, still maintains the old fallacy." Alas! Professor Schwalbe has been dead these seven years; it was he who, twenty-five years ago, first made anatomists realise that Neanderthal man was a totally separate species of humanity. Then there is an altogether misleading passage on p. 256—where it is averred that "long-headed people of existing races pass through a brachycephalic stage in childhood." Then there are other minor, but still rather important, matters which require Professor Sollas's further consideration. There is the statement that at the end of the Palæolithic period Europe was inhabited by a branch of the Mongolian race—an Eskimo people. Professor Sollas bases this daring theory on the characters of a single skeleton found in the parish of Chancelade and now preserved in the museum at Périgueux. I have examined this famous specimen and am familiar with the cranial features of the Eskimo and the conclusion I have been obliged to form is that the Chancelade skull, while possessing a few superficial resemblances to Eskimo skulls, is in its essential characters just as European as the people of England and France of to-day.

Another theory still strenuously upheld by Professor Sollas is that Europe was also at one time the home of a people allied to the Bushman of South Africa. This theory is based on the likeness which Professor Sollas sees between the cranial and other features of the Grimaldi mother and son and the corresponding features of Bushmen. A long experience in handling and examining the skulls of Bushmen has taught me that the Bushman's skull is one of the most readily identified in a miscellaneous collection of human crania and that skulls of the Grimaldi type are



nowhere to be found in Africa south of the Sahara. Professor Sollas, to be sure, can cite Dr. Verneau's authority for speaking of the Grimaldi pair as negroids. Ever since Dr. Verneau has passed this verdict upon this poor couple, apparently mother and son, buried side by side in the lower grave of a Crô-Magnon series of cave burials, writer after writer has gone on repeating it from book to book. But if anyone will take the trouble to look for duplicates of the Grimaldi type they will find them still in the Mediterranean basin—particularly in Sardinia. As for the supposed resemblance of the fat Aurignacian figurines or Venus-dolls, to the steatopygy of Bushwomen, on which Professor Sollas lays so much stress, it does not really exist. In Aurignacian Venuses the fat is laid down indiscriminately on torso, buttocks and thighs, exactly as is the case in thousands of modern European women, whereas in the Bush women, the deposition of fat is sharply localised to buttock and thigh. I fear that some of Professor Sollas's most cherished and most fascinating theories may have to be scrapped before another edition is called for, which, if truth is to be served and desert rewarded, should be soon.

ARTHUR KEITH.

## PROCEEDINGS OF SOCIETIES.

### Anthropology.

### British Association.

*Report of the Proceedings of Section H (Anthropology) of the British Association at Toronto, August 6th-13th, 1924.* **116**

Section H (Anthropology) met in the Anatomy Buildings of Toronto University under the Presidency of DR. F. C. SHRUBSALL, whose Presidential Address was entitled "Health and Physique through the Centuries." He maintained that undue alarm had been caused by the figures relating to the physical character of the British population during the war, and that a pessimistic view of their physical and mental condition was unnecessary and unfounded. There was no reason for thinking that any class was now worse in these respects than corresponding classes in previous epochs.

The Sectional Programme was very long, thirty-five communications being presented, some of them, however, by title only, the authors not being present. Canadian anthropologists were well represented.

*Physical Anthropology and Ethnology.*—DR. A. C. HADDON suggested an arrangement of the races of men based on certain physical characters, geographical distribution, and, partly, on relative antiquity, showing the divergences which have continually arisen from an undifferentiated primitive human stock. MR. CHARLES HILL-TOU, in "New Trends in Anthropology," aimed at showing that the earlier conceptions of the skull characters of primitive man were founded on misleading data, and that human skulls should be compared not with mature anthropoids, but with immature apes which represent more closely the ancestral type. A contribution by DR. A. HRDLÍČKA, who was elected a Vice-President of the Section for the meeting, dealt with the antiquity of man in America, with special reference to the skeletal remains recently discovered at Los Angeles. He was of the opinion that, although their antiquity is considerable, it is not a geological antiquity and his view that no high antiquity is to be assigned to any skeletal remains hitherto found on the American continent remains unchanged. MR. B. OETTINGER described ancient skeletal remains from Santa Barbara, California. MESSRS. W. K. GREGORY and MILO KELLMAN dealt with the dentition of *Dryopithecus*. They maintained that the evidence tended to indicate that the distinctively human modification of dentition took place after the Middle Miocene. MR. L. H. DUDLEY BUXTON described skulls from the Valley of Mexico; of three series examined, one if genuinely attributed



to "Toltec," shows that the Toltec were physically akin to the Mayas. A paper by PROFESSOR SELIGMAN on "A Pseudo-Mongolian Type in Central Africa," was presented by DR. HADDON.

MR. T. WINGATE TODD dealt with the "Relation of Industry and Social Conditions to Cranial Types in Cleveland," a paper which afforded some interesting data respecting the relation between cranial capacity and industrial depression as seen in the dissecting room. DR. LAUGHLIN, of New York, dealt with racial characteristics emerging from the study of immigrants into America. A group of papers dealing with the anthropology of children was presented by DR. ALEXANDER LOW on the results of an examination of 540 infants measured at birth, whom it is proposed to continue to examine at six-monthly intervals for at least two years; by MISS FLEMING in continuation of her previous report on work among school children, showing the influence of growth on race and sex characters; and by MR. L. H. DUDLEY BUXTON on observations on Navajo children.

*Archæology.*—DR. T. ASHBY described recent discoveries in Italian archæology, and also gave a general account of the Roman road system with special reference to its influence in the spread of Roman military power, trade, and civilisation. DR. L. AMI gave a very fully illustrated account of recent discoveries in paleolithic art in Europe.

*Ethnography.*—Apart from a communication from MR. H. BALFOUR on "The Art of Stencilling in the Fiji Islands and the Question of its Origin," the ethnographical papers dealt exclusively with the American continent. The work of the Anthropological Department of the Canadian Geological Survey was well represented, MR. D. JENNESS dealing with "The Ancient Education of a Carrier Indian," DR. E. SAPIR with "The Privilege Concept among the Nootka Indians," MR. C. M. BARBEAU with "The Crests of a Tsimshian Family, a study in native heraldry," PROFESSOR F. C. SPECK with some tribal boundaries of the Montagnais and Naskapi of the Labrador Peninsula. MR. T. F. McILWRAITH gave a detailed account of the potlatch in Bella Coola, in which he brought out the legal and social significance of the ceremony. MR. GUY E. RHOADES analysed the art of the North-West Coast Indians with special reference to its composition. MRS. R. F. BENEDICT dealt with the "Religious Complexes of the North American Indians," and MRS. E. G. SPIER analysed the ceremony of the first salmon on the Pacific Coast.

Mention may also be made here of a valuable paper by MR. H. BALFOUR on "The Welfare of Primitive Peoples," which raised several points of importance in connection with the administration of native affairs.

Two papers dealt with methods of study. DR. ALEXANDER GOLDENWEISER contrasted the methods of the American School with those of the classical evolutionary theory and the diffusionist theory. MR. W. D. WALLIS dealt with diffusion as a criterion of age. This he was not prepared to accept unless checked by history.

*Comparative Religion.*—The only paper on this subject, "The Bride of Hades," by PROFESSOR H. J. ROSE, discussed the equation of death with marriage in Greece, and related it to the sacrifice of virgins as a fertility and luck charm.

The Section took part in a joint discussion with Section J (Psychology) on Mental Racial Differences, which was opened by PROFESSOR W. McDougall, DR. C. S. MYERS, DR. SHRUBSALL, MR. PEAKE, DR. GOLDENWEISER, and DR. SAPIR taking part. A feature of the programme was a report on the so-called White Indians brought from Panama by MR. R. O. MARSH. As these Indians were living in the neighbourhood of Toronto, the President and other members of the Section, through the good offices of the *Toronto Star*, were able to visit and make a detailed examination of them. A report was presented to the Section which gave rise to a discussion in which MR. MARSH took part. The report will be printed in full in MAN.



## CORRESPONDENCE.

Africa, Central: Art.

Stannus.

*To the Editor of MAN.***"Note on Drawings by a Native of Nyasaland."**

SIR.—Fifteen years spent in and about Nyasaland and an interest in its inhabitants prompt me to offer the following comments on Miss Werner's recent "Note on Drawings by a Native of Nyasaland," *MAN*, 1924, 87. 117

Miss Werner suggests that much of the information furnished by her native informant "has to be received with caution." My own experience is that the evidence a native may supply, who left his own country "when quite young," presumably 20 to 30 years ago, should be received with *great* caution, and any information he may offer on the subject of initiation ceremonies with great doubt.

It is interesting to hear that his attempt to draw the so-called whale, *namgumi*, which figures in these ceremonies, resembled a walrus, because, of course, *namgumi* never resembles a whale, but is always depicted as a four-limbed animal with teeth or tusks.

From the evidence produced (two sketches), I feel grave doubt about the powers of "minute observation" of this native ascribed to him by Miss Werner. The first sketch is an exceedingly poor representation of that reptile, while the second sketch shows an animal with the body of a mule and a head and horns that might represent a water-buck. No antelope has the saddle-back of this picture, and neither the bush-buck (*mbawala*) nor the kudu (*mpalapala*) have the simply curved horns shown; in each case they are spirally twisted.

As regards the power of drawing, a native here and there among Nyasaland tribes will be found, as among all other tribes, who possesses this natural gift, and I cannot see, therefore, that there is any support to Miss Werner's thesis that "there is strong probability of some Nyanja tribes having incorporated a considerable amount of Bushman blood." I feel sure that a Bushman artist would be ashamed of the crocodile, and the antelope, for me, at least, lacks the Bushman's touch.

Yours faithfully,

HUGH S. STANNUS.

India: Archæology.

Migeod.

*To the Editor of MAN.***Connexion of Egypt and India.**

SIR.—There is a statement in Dr. E. H. Hunt's paper in the *Journal on Hyderabad Cairn Burials* that "there is nothing to show that there was a direct influence on the part of Egypt over India, or of India over Egypt" in early days. 118

There is, however, a mention of such a connexion in Flavius Philostratus's *Life of Apollonius of Tyana*, Book III, Chapter XX. Apollonius travelled in India in the first century A.D., and he was told in that country the following legend.

The Ethiopians dwelt in India when Ethiopia as yet was not. Egypt then stretched its border beyond Meroe and included in itself the sources of the Nile. The Ethiopians crossed over to Africa as a result of war—which is described in some detail.

In view of the very ancient working of iron in India mentioned by Dr. Hunt, this legend supports the supposition that the knowledge of iron-working came down the Nile into Egypt from the Sudan.

Yours faithfully,

F. W. H. MIGEOD.







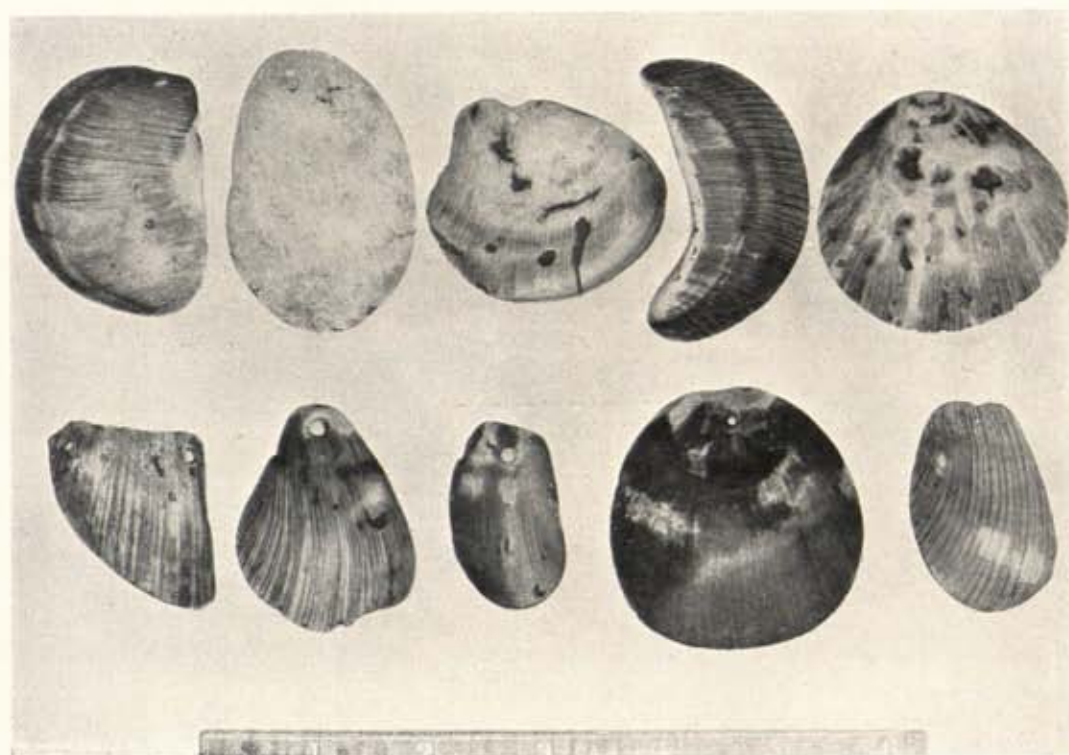


FIG. 1—TEN COINS OF DAP.

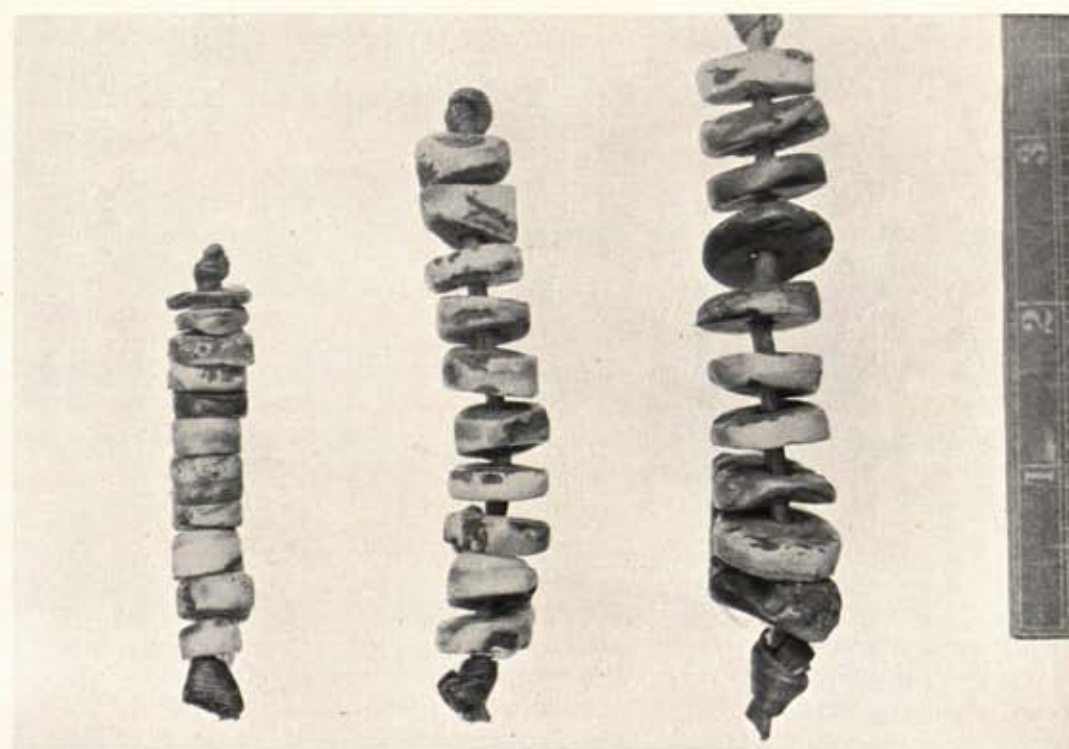


FIG. 2—THREE COINS OF KÖ.

SHELL-MONEY FROM ROSSEL ISLAND, PAPUA.



## ORIGINAL ARTICLES.

With Plate L.

Papua : Economics.

Armstrong.

**Shell-Money from Rossel Island, Papua.\*** By W. E. Armstrong.

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Two kinds of money from the island of Rossel, in the Louisiade Archipelago, are illustrated in the accompanying plate. The lowest ten values of the variety known as Dap are shown in Fig. 1. Three values of the second variety known as Kō, are shown in Fig. 2. The former exhibit a smooth outer surface, evidently the result of considerable grinding and polishing. The colours of this surface vary from white through orange to red and suggest that more than one species of mollusc, probably *Spondylus*, has been used in making the various values. The Kō money, on the other hand, is uniform in appearance, differing only in the size of the rough discs, ten of which form a unit. The size of the high value discs of Kō, which may be over an inch in diameter and proportionately thick, suggest a mollusc of some size, such as a giant clam, having a shell mainly white, streaked with red and yellow.

There are several features of exceptional interest which characterise this money. In the first place, it is used only as a standard of value and medium of exchange—it is not used as an ornament, nor for any kind of display. In the second place, it is non-renewable, except for a few low values of Dap of recent introduction, which, however, are recognised as imitations, though used in the same way as the true Dap—tradition ascribes the creation of the stock of true Dap and Kō to a period before the appearance of man, when the present gods of Rossel were the sole inhabitants of the island. In the third place, the system of value-relationships is unique. There are 22 values of Dap and 16 of Kō. If the values of either type of money be arranged in a series, then any member of the series may be expressed as the product of the next in the series and a constant. This mechanism results in a great simplification of the calculation of interest-charges; if, for instance, a Dap coin be lent for a short period, a coin of the next value in the series will be required in repayment; for about twice this unit of time, the next but one will be required and so on. The borrowing and lending of Dap and Kō are amongst the most urgent activities of the Rossel Islander, for the majority of payments are made by means of money borrowed at the customary rate of interest. A considerable amount of ceremonial attends the transfers of the higher values of this money, and the payment of mere interest on a loan, prior to repayment of the original capital, is often the occasion of a feast of some magnitude. Many such feasts, centering about transfers of money, used to result from the practice of cannibalism, for the compensation of the victim's relatives by payments of Dap and Kō seems to have been the central point of the whole ritual, and these payments implied loans of considerable extent. Even at the present day the less costly purchase of a pig or a wife implicates a large number of persons, owing to the chain of credit-operations this usually implies.

It will be noticed that the Dap coins show no serial change of attributes to mark the rise in value from one end to the other of the series. (In the accompanying plate, the lowest value occupies the top left-hand corner, value No. 10 the bottom right-hand corner.) The value of the Kō coins, on the other hand, depends on the size of the discs. A single coin consists of 10 discs of about equal diameter strung together. (One of the coins figured has 11 discs, and no doubt there is one coin on Rossel which lacks the proper number of discs by one.) The left hand Kō is a representative of the lowest value on the island, roughly equivalent to the seventh in order of value of the Dap series. The central Kō is next but one in value

\* See *The Economics Journal*, Sept. 1924, for an account of the economic functions of the money.



above this, and the right hand Kō is fifth in the scale. Sixteen values are distinguished and named, the names being compounded from those of the sixteen highest values of Dap. Payments of both Dap and Kō are involved in most transactions of any size, but the two currencies appear to be practically inconvertible.

It is a fact of some interest that a certain amount of Dap, under the name of Daberr, occurs on the neighbouring island of Sudest, where, however, it is used for personal adornment and does not function as true money, though the Rossel monetary procedure can be detected in a broken down form. Kō, on the other hand, appears to be absent from this island of Massim culture, except for one or two highly valued pieces recently obtained from Rossel.

W. E. ARMSTRONG.

### Obituary.

Peake.

**Lord Abercromby of Aboukir and Tullibody.** *By H. J. E. Peake.*

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It is with great regret that we have to announce the death of our Fellow, Lord Abercromby of Aboukir and Tullibody, which took place at his house in Edinburgh on October 7th, at the age of 83.

The late peer, who succeeded to the title on the death of his brother, the fourth baron, in 1917, was better known as the Hon. John Abercromby. He had long been a conspicuous figure in the Archæological world of the northern capital, having been president of the Society of Antiquaries of Scotland and a Fellow of the Royal Society of Edinburgh. He was elected a Fellow of the Royal Anthropological Institute in 1883, but, owing to his distant residence, he was not often able to attend its meetings. He was present, however, in 1902, when he presented a paper dealing with the Bronze Age Pottery of Great Britain, and in 1914, when he read a paper on "The Prehistoric Pottery of the Canary Islands and its Makers." Both papers were subsequently published in the *Journal of the Institute*. On the formation of a branch of the Institute at Edinburgh in 1922, he became its first president.

When the British Association for the Advancement of Science met in Edinburgh in 1922, the presidency of the Anthropological Section was vacant until, at the last moment, Lord Abercromby kindly consented to occupy the chair; those Fellows who were present on that occasion will remember with what assiduity he fulfilled his duties, in spite of advancing years and failing health.

In earlier life his interests lay chiefly in the field of Comparative Philology, and he became a great student of the Finnish language. It was at this period that he wrote the "Pre- and Proto-Historic Finns," which was published in 1898. This led to his election as an honorary member of the Finnish Archæological Society and of the Finno-Ougrian Society of Helsingfors. His great work, however, was "the Bronze Age Pottery of Great Britain and Ireland," published in two handsome volumes in 1912; this, though some of its minor conclusions have failed to receive universal acceptance, is and will long remain the standard work on the subject. Though he was rarely seen at the Institute, he was known to many of its Fellows, by whom he will be remembered for his careful scholarship, his unfailing generosity and the exceptional charm of his manner.

H. J. E. PEAKE.

America, Central: Albinism.

Shrubsall, Haddon, Buxton.

**The "White Indians" of Panama.** *By F. C. Shrubsall, M.A., M.D.,* 121  
*A. C. Haddon, Sc.D., F.R.S., and L. H. Dudley Buxton, M.A.*

[The following report on the Indians of Panama, brought back to the United States by Mr. R. O Marsh after his expedition to the Chucunaque River, is the result of an examination made by certain members of Section H of the British



Association while on their way to attend the meeting in Toronto in August last. The arrangements were made by the *Toronto Star*, to whose courtesy the use of the illustrations, from photographs taken by a member of the staff, is due.]

Owing to the courtesy of the *Toronto Star* and Mr. R. O. Marsh, we have had the opportunity of examining, at Prescott, Ont., the Indians from Chucunaque River, Panama, recently brought to Canada. We had the advantage of the expert assistance of Dr. Cattleley, ophthalmologist to the Ogdensburg hospital (New York State).

The Indians examined include three children—two boys and a girl—who have been described as "white Indians," the parents of the girl, and two San Blas natives from the adjacent district.

We are satisfied that all the above have every appearance of being full blood, they are of short stature and of the general type of Central American brachycephal.

We directed our attention more especially to the white subjects. The head form, forehead, shape of the face, nose, palpebral fissure, epicanthic fold and general proportions of the body were clearly of the local Darien type.

It was at once obvious that they were very sensitive to light and that their vision was subnormal. They all showed constant rapid lateral nystagmus and the younger boy had occasional rotary nystagmus. The colour of the irides was grayish violet, closely resembling that of a new born infant. They all showed some increase of pigmentation at the pupillary margin and, in the case of the elder boy, a certain amount of brownish colouration was present. Examined by the ophthalmoscope, choroidal pigmentation was markedly deficient. On applying light to the lower eyelid a pink reflex was visible throughout the entire globe. The pupils were not very contracted. The sclerotics were white.

The hair of the head was very light golden and straight. The eyelashes were nearly white; the axillary and arm hair, and, in the case of the elder boy (the only subject thus examined) the pubic hair, was practically white.



FIG. 1.—THE WHOLE GROUP OF INDIANS, SHOWING SAN BLAS INDIANS ON RIGHT AND LEFT OF GROUP, AND THE FATHER AND MOTHER OF "WHITE" GIRL IN THE CENTRE.



FIG. 2.—"WHITE" BOYS (NOT RELATED).





FIG. 3.—ELDEST "WHITE" BOY, SHOWING WHITE EYELASHES AND BLOTCHES ON FACE.



FIG. 4.—DARK FATHER AND MOTHER AND "WHITE" DAUGHTER.

Apart from colour, the hair was similar in texture to that of Indian children of a corresponding age.

The skin was as light as that of a northern European, with the same rosy tint. Distinctly yellow-brown freckles and blotches occurred on the exposed parts; these were yellow on the parts which had been recently covered by clothing. The skin of the younger boy, whose age, from the teeth, was estimated at twelve years, was rougher and more hairy than that of the others.

The younger boy showed a tendency to brachydactyly, the little finger being especially short. The girl's finger joints were hyperextensible. Examination of the chest revealed that in the younger boy the first heart sound was not pure, and the thyroid was not palpable.

The girl could be compared with her parents, who appeared to be in all respects normal, but we were informed that her maternal grandmother was a "white Indian." The family history of the others was not available.

The conclusion arrived at is that the so-called "white" characters are due to albinism, and are of no racial significance.

F. C. SHRUBSALL.

A. C. HADDON.

L. H. DUDLEY BUXTON.

### Africa, East: Religion.

**Notes on Utani and other Bondel Customs.** By Dora C. Abdy.  
(Continued from MAN, 1924, 114.)

Abdy.

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#### *Mzimu.*

The belief in *wazimu* is common to the Washambala, Wakilindi, Wabondei and Wazigua.

*Mzimu* is the spirit of a dead man; but the *mzimu* may be of two kinds—a family *mzimu*, or the *mzimu* of a whole town or district.

(a) If anyone falls ill or there is any misfortune in a family, the father (or other living head of the family) goes to the grave of his father, "*kuvika*"—"to worship"



the spirits of his dead relations; for they are all supposed to be collected in the same place. He offers a fowl and *ugali* (porridge); he plucks the fowl, and prays:—

*tate agone*  
*mame agone*  
*wau agone* (etcetera)  
*mtoto wangu apate ugima.*

"May my father sleep,  
 may my mother sleep,  
 may my grandmother sleep . . .  
 that my child may get health."

Part of the fowl and porridge he eats, but a wing and the breast of the fowl and some of the porridge he leaves on the grave.

If his father is buried far away, he worships at the door of his own house, and his *mtani* eats the portion that would have been left on the grave.

If illness or misfortune comes, it is always thought that the family spirits are angry because they have been neglected.

(b) If a whole district is afflicted with some disease like small-pox, it is thought that some neglected *mzimu* or some strange *mzimu* has brought the disease. The oracles (*mianulo*) are consulted, or a *mgonezi* (seer), or a person possessed by *walungu* (a number of spirits). (There are various kinds of *mianulo*: bits of stick may be laid out in rows, and it is noted whether they are disturbed in the night: this is *mianulo ya pandi*. In *mianulo ya solo* the witch-doctor juggles with marbles. In *mianulo ya utumbo* the entrails of animals are inspected.) It is then announced that the *mzimu* dwells in a certain tree or oddly-shaped rock, and the elders of the town go to confess (*semba*) and to worship (*vika*).\*

These *wazimu* can change their dwelling-place, and they are worshipped as long as the fear of the disease lasts.

The chief of the Bondei *wazimu* is called *Seketeke*, who is said to inhabit *Mlinga*, a curious barren mountain with a rocky summit shaped rather like the peak of the Matterhorn. The spirits of good Bondeis go to *Mlinga* when their corpses have been passed over the blood of a goat and the days of mourning are finished. Then the elders say they can hear the creaking of brazen gates, and the spirits pass in. In 1918 there was no rain here, and the heathen sacrificed a goat to *Mlinga* and prayed for rain; but *Seketeke* replied that there would be no rain unless they brought an ox.

I asked why a son should worship his father's *mzimu* at his grave, when he believes the *mzimu* to be at *Mlinga*. I was told that the *mzimu* went by an underground passage from the grave to *Mlinga* (and therefore the prayers had to go by the same way?).

Every *mzimu* is given a name. The *mzimu* of a rock near a ruined Portuguese chapel in Zanzibar is called *Mfalme Popu*—"King Pope."

#### *Mwiko.*

*Mwiko* is a forbidden thing—an animal or bird, or (less commonly) a vegetable. The *miiko* (plural) belong to the *kolwa* (family; house; descendants of one man). The origin of the *mwiko* is said to be that once, long ago, the head of the family ate some food which disagreed with him and subsequently forbade all his descendants to eat it: in some cases he also forbade them to lie on or use the skin of that animal.

\* Another informant described a family offering to a strange *mzimu*. They go to the place and kneel down. The father holds out the fowl, and the mother props up the sick person; and the father says: "We have come to confess (*kusemba*), we knew not that you dwelt here; now we have come. If it is you that have hurt the sick man, release him. If he is cured we will come to *vika* again." Even if the sick person dies they fulfil the vow, for fear that another man should die.



The inherited *miiko* are lifelong. There are also *miiko* which are imposed by the witch-doctors for a limited period, very often on the same principle as the dieting ordered by a physician. The expression used is *kuweka mwiko*, "to impose a *mwiko*"; this sounds like "to put away the spoon," but the Bondeis say that the word has no connection with the word for spoon. The word is also used by the Christian Church in the Zanzibar diocese; for instance, meat is "*mwiko*" on days of abstinence.

#### *Ndege.*

*Ndege* means "bird" and also "bad omen." If a man wants to go on a journey he considers the *ndege*. If, when he leaves his village, he meets people one by one, meets a man with one eye, hears a bird called *kanga* cry on his right, or hears an antelope or leopard at night; or if a branch falls across his path; he must turn back, because the journey is unlucky. If it rains when a bride is going to her wedding she must turn back at once, and the marriage is postponed or broken off altogether.

#### *Matumbwi and Vigego.*

A child which is ill-omened from its birth is called *mtumbwi*; one which becomes ill-omened when it is a little older is called *kigego*.

The following are *matumbwi*:—a child prematurely born; a child whose parents have not passed through the initiation dances; a child born feet first; a child born with teeth; a child who sits up and talks too soon.

The following are *vigego*:—a child who cuts the upper teeth before the lower; a child who walks or talks too soon. Two babies must not laugh or smile at each other when they are playing; if they do, when they cut their teeth they will be *vigego*. A mother covers her child's face with her hand if she sees it laughing with another baby.

A *kigego* is taken to the *mtani* of the family to be killed, and a goat is given to him in payment. A *mtumbwi* is stifled or secretly put away by one of the grandmothers; the body is buried, and a cooking-pot with a hole in it is put over the grave; then the mother is able to bear a lucky child.

Among the Wazigua a child is reckoned *mtumbwi* if the mother's nose bleeds or she cuts her hand or foot badly during the pregnancy.

#### *Kungwi.*

At a marriage, a married couple who are called *makungwi* take charge of the young couple and see them through. Any married couple who are good-natured enough to take the trouble may act as *makungwi*, as long as they are not related to the bride and bridegroom; the *mtani*, being a blood relation, cannot be a *kungwi* to any of his *watani*. The boy goes by night and calls to the woman, who is the girl's *mkungwi*; she calls the girl, and the girl and the woman follow the boy and the man to the married couple's house. Here the woman carries the girl over the threshold on her back. The boy and the girl then wash each other.

DORA C. ABDY.

#### Mesopotamia: Archæology.

**Herodotus and Assyrian River Transport.** By James Hornell, **123**  
F.L.S., F.R.A.S.

In the account which Herodotus has given (Bk. I, Sec. 194) of the river-craft that brought cargoes to Babylon from the mountain region of Armenia, he appears to have confounded the two types of transport in common use on the rivers above Babylon—the wicker-framed coracle and the timbered raft supported on inflated



skins. The latter he fails to mention, although Assyrian sculptures afford conclusive proof of its employment in ancient times. It seems to me that Herodotus could have been familiar only with coracles, and that his description went wrong by his interpretation of the stories told him of inflated-skin rafts in terms of the skin-covered coracles actually known to him. As a foreigner imperfectly acquainted with the technology of Assyrian river transport, a reference to the skins supporting the rafts might easily be misunderstood by him and these skins confounded with the hides covering the outside of the coracles which were then the usual means of transport across the Tigris and Euphrates, as are the bitumen-smeared *kūffās* of the present day.

This conclusion is justified if we consider the qualities and limitations of these two crafts as we know them to-day. The coracle is an excellent means of transport across and even down rivers when rocky rapids have not to be negotiated. They can be made of considerable size and are able to transport comparatively heavy loads. I have seen ferry coracles, made of a split bamboo framework, covered with raw hides, used to transport a dozen sacks of rice and six passengers across the Tungabhadra in South India. But these large coracles are useless for cargo carrying if they have to thread rock-beset rapids; they are liable to capsize when descending through broken water if the current throws them against a rock; their hide covering is also easily pierced by sharp projections, and when this occurs they are in imminent danger of sinking before it is possible to beach them. Hence they are particularly unsuitable to transport such a cargo as wine from the mountains of Armenia by way of the Tigris or the Euphrates, for the course of both is impeded by numerous dangerous rapids both before and after they emerge upon the plains of Mesopotamia. This disability of the skin-covered coracle to do the work assigned to it by Herodotus has not been noted by any commentator, though certain remarks by Layard betoken doubt as to the accuracy of his account. Layard's words are as follow:—"I was, at one time, inclined to believe that the description of Herodotus applied to rafts still constructed on the rivers of Mesopotamia. . . . The materials of which they are made are precisely those mentioned by the Greek historian, and they are still disposed of, at Baghdad, in the same way as they were in his day at Babylon. But the boats which excited the wonder of Herodotus seem to have been more solidly built and were capable of bearing animals, to which purpose the rafts now in use could not be applied. They were probably more like the circular vessels now used at Baghdad, built of boughs . . . over which bitumen is smeared."\*

I am at a loss to understand this statement that rafts cannot be used to carry animals; in view of the fact that the larger rafts of the present day have a cargo capacity of several hundreds of bags of grain, and that huts are sometimes built upon them to accommodate passengers, there can be no inherent difficulty in carrying the one or two asses mentioned by Herodotus.

Colonel Rawlinson also seems to throw doubt on the Greek historian's statement that the coracles of Assyrian days were skin-covered, as he had neither seen nor heard of either on the Euphrates or the Tigris.† However, in this particular there can be little doubt that Herodotus is correct; apart from Layard's statement that *kūffās* are "sometimes covered with skins,"‡ and Chesney's observation§ that "in some instances, though but rarely in the present day, the basketwork is covered with leather," we have the fact that in Southern India, where coracles are still much

\* Layard, A. H., "Ninevah and its Remains," London, 1849; Pt. II., Chap. V., p. 380.

† Rawlinson's "History of Herodotus," 3rd edn. 1875, p. 318.

‡ Layard, A. H., *loc. cit.*, p. 380.

§ Chesney, F. R., "Expedition to the Rivers Euphrates and Tigris." London, 1852, Vol. II, p. 640.



in evidence on the Tungabhadra, Cauveri, Bhawani and other rivers, they are invariably covered with raw, untanned hides. It may therefore be inferred that the application of bitumen as a means of waterproofing the basketwork of coracles was not practised at the period when Herodotus wrote. It may possibly be a comparatively modern innovation.

So far as regards coracles (*kūffās*), there is no foundation for the statement made by How and Wells\* that coracles and skin rafts "are alike in sailing down stream only, and in being broken up and sold (all but the skins) when the voyage is over. The rafts are always, the *kūffās* only usually broken up."

Coracles are never used for long distance traffic at the present day, and consequently are not broken up until they become unserviceable. Similarly, had they been used for cargo transport from Armenia to Babylon, there would have been no need to break them up on arrival at their destination. They would have been much more valuable and saleable in an entire condition than if taken to pieces. If left entire they would have been useable on the Babylonian waterways for ferry and transport purposes, precisely as thousands are at the present day at and around Baghdad; if broken up the willow framework would be of trivial value and of no use except as a very inferior fuel. The same commentators also invalidate their statements by adding: "Herodotus omits to mention that the boats are usually smeared with bitumen." If they had been smeared with bitumen there would have been no need to cover them, in addition, with skins. A lack of technical knowledge is shown in these comments. Further evidence of the impossibility of coracles having been used for long distance traffic on the rivers of Assyria is afforded by Herodotus's observation that the cargo carried by the largest might amount to the great weight of 5,000 talents. As How and Wells state, this would give a burden of about 125 or 175 tons, according as the Attic or Æginetan talent is taken as the unit. Even the lower of these figures is a preposterous weight for a woven willow basket to sustain, whereas it is a practicable cargo for the huge timbered rafts sustained by hundreds of inflated goat skins in use at the present day on the Tigris and the Zrgle for carrying grain and other cargo to Baghdad—the extensive wine trade of the days of Herodotus being now non-existent. Unlike coracles these rafts negotiate rapids with comparative safety; so many skins are used that a number may be punctured without involving anything more serious than a few hours' delay while these skins are being repaired and re-inflated.

Sir E. A. Wallis Budge informs† us that such rafts are often 40 feet square and more, exceptionally large ones being supported by 700 to 1,000 skins according to the nature of the load. Budge's description of the fate of these rafts (*kalaks*) is precisely that given by Herodotus of his coracles; many other modern authors have the same story to tell of the *kalak*, including Pietro della Valle (1586–1652), but none, save How and Wills, suggests or states that coracles are so treated.

The conclusion is definite that the river trade from Armenia to Babylon was conducted in the time of Herodotus precisely as it is to-day above Baghdad, by means of skin-supported rafts. It would also appear clear that at the period when Herodotus wrote, the primitive custom of covering wicker coracles with raw hides had not given place to the more effective and economical method of rendering them watertight by an application of asphalt or bitumen as seen in the *kūffās* of Baghdad at the present day.

J. HORNELL.

\* How, W. W. and Wells, J., "A Commentary on Herodotus." Oxford, 1912, Vol. I, pp. 149–150.

† "By Nile and Tigris," Vol. II, pp. 86–91. London, 1920. He states at p. 99 that grain cargoes are stacked on these rafts in sacks piled from four to six tiers high.



Africa, East: Archæology.

Wayland.

**The Stone-Age in Uganda.** By E. J. Wayland.

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In Volume III, Part IV of the Proceedings of the Prehistoric Society of East Anglia the following statement occurs (on p. 621) in reference to a paper read by me at a meeting of the Society at Burlington House:—

" . . . as further evidence is expected from Uganda next year the printing of his [Mr. E. J. Wayland's] paper in full is for the present deferred."

In view of this, and because I had made no further communication to the Society, I, not unnaturally, took it for granted that my lecture would remain unpublished. It is therefore a matter for surprise to me to find it printed in the Society's succeeding issue (Vol. IV, Part I, 1922-23). Had I been aware that my lecture (delivered on March 28th, 1922) was to pass through the printer's hands in 1924 I should certainly have attempted to bring it up to date; and it is for that purpose, and also in order to correct some typographical errors, that I seek the favour of publicity in the columns of MAN.

Two years' work has considerably widened one's knowledge of the stone ages of Uganda and has indicated a necessary revision of the working hypothesis originally laid down.

The evidence for a widespread pluvial period in Pleistocene times is, if anything, strengthened; but the succession of pluvial facies corresponding to the Günz-Mindel, Riss, and Würm glaciations is more problematical than it appeared two years ago. The rise of the lakes and rivers (? in the days of the Günz-Mindel glaciation) remains, as yet, unquestioned, but the subsequent fall of the water-level, whether or not associated with a decrease in rainfall, was essentially due to tectonic causes, and was consequent upon a general downthrow of the country to the north and north-east of Lake Victoria. This downthrow accompanied a sinkage of the floor of the Lake Albert rift and gave rise to the Victoria Nile. Whether Lake Victoria had any outlet before this is unknown: if it had, the discharge was probably to the north-east—possibly through the Turkwel valley. Here one may note the astonishing fact that early man knew Lake Albert when it stood more than 1,000 feet higher than it stands to-day. When the great sinkage took place the Le Moustier cultural facies had been reached in Uganda. Whether the double terracing that certainly succeeds the great fall of the water-level can be associated with pluvial periods or not is at present uncertain.

More than thirty types of stone tools are now known from this country and several important discoveries of artifacts *in situ* in gravels have been made; cave discoveries have, however, not been added to. Among the cultural groups a pre-Chellean facies certainly exists, and from geological evidence it appears in its earliest development long to antedate the time when tools of the Le Moustier type were made. But although tools having a distinctly Chellean and Acheulean aspect have been found, they are not certainly known to constitute facies; and there is not much doubt that many of the ovates of apparently Acheulean affinity belong to the Le Moustier group—as indeed do probably more than eighty per cent. of the specimens collected to-date. It is difficult to avoid the impression, which may however turn out to be a wrong one, that the Le Moustier facies was earlier developed in Africa than in Europe, to which continent it may have been introduced from the Mediterranean coast.

The large tools of the Sango types (figured in *Occasional Paper No. 1* of the Geological Survey of Uganda in 1923) are now known to occur practically wherever extensive beds of quartzite crop out. Among these tools picks and large ovates are conspicuous. They are associated with artifacts of the Le Moustier facies. Many of the picks are decidedly rostro-carinate in general form. Concerning tools of post-Le Moustier facies little can be added or subtracted from my previous statements except that they have been found over wider areas than hitherto, and that I have



no longer much doubt as to the Solutrean affinity of the leaf-shaped blades—I speak under correction, however. I may add that, though widely distributed, few have been found. The same is true of the pigmy tools.

With regard to the illustration accompanying my paper in Vol. IV, Part I of the Proceedings of the Prehistoric Society of East Anglia, I presume these have been selected by Mr. Reid Moir. I fancy a wrong scale has been given to the figure that appears in Plate IV; and I must disclaim responsibility for the view expressed in connection with figure 4 (opposite page 103). All the tools figured belong to the Le Moustier facies of this country.

There are twenty-eight more or less obvious typographical errors (as, for instance, "ot" for "of," p. 96, line 11; "Targanyita" for "Tanganyika," footnote p. 103; and "levallors" for "levallois" p. 104, 5th line from bottom). The worst, however, is "penneplain," and derivatives therefrom, spelt with two n's instead of one.

E. J. WAYLAND.

## REVIEWS.

### India : Folklore.

Tawney : Penzer.

*The Ocean of Story*, being C. H. Tawney's translation of Somadeva's *Kathā Sarit Sāgara*, now edited, with introduction, fresh explanatory notes, and terminal essay, by N. M. Penzer, M.A., F.R.G.S., F.G.S. In ten volumes. Vol. I: with a foreword by Sir R. C. Temple, Bart., C.B., C.I.E. London, privately printed for subscribers only by Chas. J. Sawyer, Ltd. 1924. 10½ × 7½. Pp. 280. Price £2 2s.

Originally written by a Brahman, Somadeva, about A.D. 1070 for the special delectation of Queen Sūryavatī of Kashmir, the *Kathā Sarit Sāgara*, which is twice as long as the Iliad and the Odyssey put together, has long been known as the earliest collection of stories in the world. The preparation of the present edition, which contains a memoir of the translator, Mr. Tawney, an admirable foreword by Sir Richard Temple, and an introduction by the Editor, Mr. N. M. Penzer, is held to be justified by the considerable strides recently made in the study of comparative folklore, religion and anthropology, and by the extreme variety and importance of the work itself. Here we find animal stories dating back hundreds of years before Christ, legends of Vedic days explaining the creation of the earth, tales of vampires, poetic love stories, and vivid descriptions of terrible battles between gods, men or demons; and they are all told by the Brahman poet of Kashmir in a manner which proves him to have been not only a man of genius, but also a master of style and a profound student of human nature. The original translation by Tawney, subject to the rectification of a few omissions, has wisely been left unaltered: but to his notes have now been added by Mr. Penzer a large variety of additional annotations, based upon information accumulated by various learned societies during the last forty years. These, together with four important appendices on "Mythical Beings," "The use of Collyrium and Kohl," "The Craving of the Pregnant Woman as a motif in Hindu Fiction," and "Religious Prostitution," constitute the chief features of the new edition, while the adoption of a system of numbering the stories makes the reading easy and serves as a guide to students of comparative folklore.

In his foreword Sir Richard Temple enumerates some of the questions and problems which arise from an analysis of Somadeva's work. The Aryan or non-Aryan origin of the tales is one of the points dealt with; the origin of the non-Aryan stories and the relations existing between Aryan and non-Aryan in pre-historic India are also matters for inquiry; and various considerations are suggested as a basis for further research into the *fons et origo* of the fables. It is curious to reflect that some of the early stories from the Egyptian papyri bear a striking resemblance to tales in the *Kathā Sarit Sāgara*, and, on the other hand, that incidents in stories which are well known in most European nurseries existed in India more than two thousand



years ago. Mr. Penzer's footnotes are so good that little criticism is admissible. On page 54 he remarks that *sati* (suttee) dates from the 4th century B.C. It is quite true that the custom was well established in the Panjab at that date, and on that very account may be considered as having been introduced at a much earlier period. In all probability *sati* is a refinement of a more savage custom, and therefore much older than the 4th century before Christ. On page 60, again, the note, presumably by Mr. Tawney, might have been re-written, for, as it stands, it seems to accept the old view that Śālivāhana was an individual ruler, whereas the name (otherwise written Śātavāhana) is that of a dynasty. The instances of the "blood-bath" for the purpose of obtaining offspring, given on page 98, are not the most recent. Three cases of the murder of children with this object occurred in the Panjab in 1921, in one of which a barren woman bathed in the blood of the murdered child. Similarly the belief expressed in the note on page 160 that *dhatura* is still employed to stupefy people whom it is intended to rob, might have been definitely established by reference to the police reports of the Indian provinces during recent years. There were 91 cases of poisoning in the United Provinces and 68 in the Central Provinces during 1921; and this form of crime is particularly prevalent in Ghazipur, Bahraich and Gorakhpur, the victims in almost every case having been drugged and robbed at railway stations. The explanation of *mṛigāṅka*, an epithet of the Moon, as "hare-marked," "because Hindus see a 'hare' in the moon," appears scarcely correct. The words *Śasāṅka* and *Śasidhara* are applied to the Moon in that sense; whereas *mṛigāṅka* signifies "the deer-marked," in allusion to the alternative theory that there is an "antelope" in the Moon.

One or two minor points occur in connection with Mr. Penzer's essay on Sacred Prostitution, printed as Appendix IV. Various examples are given on page 242 of the use of the mystical number 108. To these might be added its use in documents before the name of the "Mahārājas" or high-priests of the Bhattia caste. In any letter or statement containing a reference to one of these Gosains, the name of the individual invariably appears as "108 Devakinandan Mahārāj" or "108 Gokulnāthji Mahārāj." The account of the Nāikins on page 245 omits to mention that one of their chief strongholds is a district in Goa—a fact which may account partly for the suggestion, current in Bombay some years ago, that these women are descended from the illicit union of Portuguese priests and Hindu women. There is little evidence to support this view, and it is more likely that the women were originally descended from the courtesans of Vijayanagar, who must have taken refuge in the villages of the Carnatic and the South Konkan when the city was finally destroyed by the Muhammadans. Mr. Penzer also omits all reference to the well-known classes of Murali and Vaghe, of whom the former are girls, and the latter are male children, dedicated to the god Khandoba of Jejuri in the Poona district. Moor (*Hindu Pantheon*) records the presence of a large number of sacred harlots or Muralis, when he visited Jejuri, and, despite the influence of a century of British rule and British missionary endeavour, the number of Maratha Kunbis and Mahars who dedicate their female children to the god, and therefore to a life of prostitution, is still considerable. No one, presumably, will dissent from the editor's general conclusion that the basis upon which all systems of religious prostitution in India and other countries rests, is the desire to ensure fertility in both the animal and vegetable kingdoms. Mr. Penzer's edition of Tawney's translation of this Hindu classic is sure of a warm welcome from all students of comparative religion, folklore, sociology and anthropology; and, when the ten volumes are complete, it will form a worthy addition to any library.

S. M. E.

*Ancient Hunters.*—Prof. W. J. Sollas has written "a complete reply" to Sir Arthur Keith's review of his book (see MAN, 1924, 115), which, un-



fortunately, was received too late for insertion in this issue. It will appear in December.

### Mesopotamia : Archæology.

Langdon.

*The Babylonian Epic of Creation restored from the recently recovered Tablets of Aššur. Transcription, Translation, and Commentary.* By S. Langdon, **126**  
M.A. Oxford : At the Clarendon Press. 1923. Pp. 227. Price 16s. net.

In this volume Professor Langdon publishes a transliteration of the collated texts of the Epic of Creation, with translation and notes. He has produced a work of great importance, not only for Assyriologists but also for students of religious origins. It is interesting to note that, even where it is not so stated on the colophons, and where the colophons are missing, a Babylonian derivation may be assigned to the tablets. The scribes of the older Assyrian period at Aššur deliberately suppressed the name of the Babylonian god Marduk, and replaced him by Anšar (Ašur), the national deity of Assyria.

The Epic of Creation was written about the period of the First Babylonian Dynasty, 2225-1926 B.C., though no texts dating so far back survive. It is connected with the New Year Festival of Nisan, the ritual of which in part is known, and here quoted from texts edited by Thureau-Dangin. It is in relation to this festival that Professor Langdon makes what is, perhaps, his most important contribution to questions of religious origins in the form of a translation of the tablets relating to the myth of the Death and Resurrection of Bel, recovered from Aššur. It is clearly a Babylonian cult, probably inspired more or less by the Tammuz cult, and offering certain very obvious resemblances to the narrative of the New Testament, which, as Professor Langdon says, will undoubtedly become the subject of much theological discussion. The question is again discussed in an appendix in the light of later information relating to the god Lillu.

Many points relating to details of Babylonian myth and belief arising in the course of the translation are discussed in the author's notes, which have a wider interest than their immediate bearing upon problems of Mesopotamian theology and ritual. Among these is the question of the sacrifice of the king at the annual feast, where the evidence supports the views of Sir James Frazer, but only in part.

E. N. F.

### Africa, South : Folklore.

Bleek.

*The Mantis and his Friends ; Bushman Folk-Lore.* Collected by the late Dr. W. H. I. Bleek and the late Dr. Lucy C. Lloyd. Edited by D. F. Bleek, **127**  
Cape Town : T. Maskew Miller. London and Oxford : B. Blackwell, Ltd. 1923. Pp. 67, 10 × 7½.

Miss Bleek has here published an instalment of the Bushman folk-tales left in manuscript by her father and aunt. It is well known that a mass of such material exists, and it was a great disappointment that Miss Lloyd's volume of 1910 presented only a small part of it, and has till now been left without a successor. The present selection deals chiefly with the Mantis, that mysterious figure in Bushman mythology who "has creative powers and can bring people to life again," yet was not worshipped. Miss Bleek thinks he was "just a sort of dream Bushman"; he may have been a totem, but, if so, it was a totem belonging to the whole race, not to any particular tribe or clan—and we know, from Stow's "Native Races of South Africa," that such clan-totems existed. Traces of a mysterious reputation attaching to the Mantis appear to be found here and there in Bantu Africa—e.g., the belief recorded by Junod among the Baronga, that the spirits of the dead occasionally assume this form, and the name Kukuwazuka ("fowl of the spirits") given to the insect on the northern Swahili coast. The relationship of the Mantis and other creatures here mentioned (his wife is the Dassi, or hyrax, his sister the Blue Crane, etc., etc.), recall



the extraordinary genealogies of animals in the Bushongo cosmogony. A further touch of mystery is added by the assertion that: "All these were once men and women, people of the early race. Now they are animals." Is this a late attempt at rationalising, by narrators who feared that the doings of the Mantis and his congeners, if ascribed to them as such, might be deemed incredible? Such a scruple would scarcely occur to any unsophisticated African, but might unconsciously arise after intercourse with Europeans—compare similar interpolated explanations in "Uncle Remus."

One tale, "Foulmouth, the Blue Crane and the Girls," may possibly be the original of the rather fragmentary Sechwana story (published in No. 1 of the *South African Folk-Lore Journal*, 1879), where children are rescued from an ogre by a mysterious bird, Phuku-phuku.

The get-up of this volume, rather suggestive of a gift-book for children (to whom, I imagine, it would not prove very attractive), should not be allowed to disguise its value as a serious contribution to folklore, and—a matter of equal importance—a record, otherwise virtually unattainable, of Bushman life and thought.

A. WERNER.

## CORRESPONDENCE.

Religion.

Hocart: Róheim.

To the Editor of MAN.

### The Polite Plural.

SIR,—Mr. H. J. Rose's criticisms in MAN, 1924, 80, of my theory of the polite plural must have been written before he could have seen my letter in the May number (No. 62), as he is attacking a theory which that letter made it quite plain I did not hold. Mr. Rose evidently conceives my idea thus: various peoples have had divine kings, the incarnations of several deities; these various peoples, Indians, Greeks, Romans, have independently carried out this doctrine of incarnation to its logical conclusion by addressing the incarnations as several persons. That is not my idea at all; what I meant to suggest is that, somewhere or other, probably between the Halys and the Ganges, this deduction was made, and, having been made, was carried eastward and westward. It is not at all necessary that wherever the polite plural occurs it should once have been the practice to address a single person in the plural with the intention of conveying that that person was really several. That certainly has not been the case with us: the polite plural came to us from the Romans merely as a mark of respect; as a mere mark of respect also it may have come to the late Romans. The discussion as to whether the early Greeks and Romans had divine kings or not is, therefore, utterly irrelevant.

All I claim for my theory is that it is the best in the field because it explains best the meagre facts available. It gives a simple explanation how such a curious custom could have originally arisen; it also fits in with the distribution and chronology, so far as I possess any data; we know that the polite plural was used erratically in India, a land of incarnation *à outrance*, when the Jatakas were composed, therefore any time B.C.; according to Mr. Rose it appears sporadically in the Roman Empire in the 4th century A.D., the very century in which, under Diocletian (284-305) and Constantine (325-337) the East finally triumphed over the classical world; the Arabs did not take it up until after they had invaded those countries, through which or from which I suppose the Romans to have obtained it. Going eastward we find the polite plural stops short in Fiji; it is not found in the neighbouring Polynesian islands. (Incidentally, I hope in next year's issue of the *Ceylon Journal of Science* to show that there is a close connection between Fijian and archaic Indian culture).

If any one has a theory that will explain more satisfactorily the above facts,



and any further facts that correspondents may kindly contribute, I shall have succeeded in my purpose, which is to arrive at something which will cover the whole of the facts in every detail.

Mr. Rose hints at an alternate theory: "When several people are addressed, Latin and Greek often name one of them only, yet go on to use the second person plural. . . . This also might have its share in developing the third person plural." But that is just an ordinary true plural; the fact that only one person's name is mentioned does not in any way make it a plural *vice* singular. Mr. Rose makes no attempt to trace the transition from that true plural to the polite plural, from the many to the one, nor does he explain why this ancient Roman and Greek usage should not have developed into a polite plural till the 4th century A.D. There must have been some cause coming into operation in the 4th century which was not there before; Mr. Rose does not hint what it is. Nor does this theory attempt to square with chronology or distribution.

The time for such airy suggestions is gone. The demand is arising for a standard of explanation as severe as prevails in physics. If the physicist finds after two centuries that the theory of gravitation does not fit certain facts observed during an eclipse he overhauls it. It is to be hoped that historians will some day be equally rigorous. My aim in putting forward this and other theories has been to help to bring about that golden age (which I fear we shall not live to see) by proposing something that will cover the facts better than anything so far propounded; then perhaps some one will go one better and so on until the whole of history appears as one inevitable sequence of cause and effect.

Yours faithfully,

A. M. HOCART.

Anuradhapura, Ceylon.

P.S.—I regret that in my letter in MAN, 1924, 62, I overlooked a clerical error. In line 9 for "were not told" read "we are now told."

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*To the Editor of MAN.*

#### **The Polite Plural.**

SIR,—The view put forward by A. M. Hocart—MAN, 1924, 3—on the custom of addressing somebody, especially the divine king, as if he was not one, but two or many, is that the form of speech must be taken in a literal sense, as implying a belief that the king or priest is really "two" because possessed by a spirit or god. The following quotation from Codrington will at least serve to show that this is a *vera causa*, though it may not be operative in all cases where the polite plural is found: "Not long ago there was a man in that island—Leper's Island—who out of affection for his dead brother dug him up and made arrows of his bones. With these he went about speaking of himself as *I and my brother*; all were afraid of him, for they believed that his dead brother was at hand to help him."\*

Yours faithfully,

G. RÓHEIM.

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### PROCEEDINGS OF SOCIETIES.

#### **Anthropology.**

Institut International d'Anthropologie.

**Report on the Anthropological Congress held in Prague under the auspices of l'Institut International d'Anthropologie.** By **129**  
M. C. Burkitt, delegate of the Royal Anthropological Institute.

A congress, arranged by l'Institut International d'Anthropologie, was held at Prague from Sunday 14th to Sunday 21st September. I had the honour to represent the Royal Anthropological Institute and herewith is a report of the proceedings.

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\* R. H. Codrington, "The Melanesians," 1891, p. 309. Note.



Before anything else is said, I should like to bear witness to the extraordinary kindness and generosity shown to us by our Czechoslovakian hosts. It would be invidious to single out any special names, for everyone concerned gave themselves up completely to looking after us and making the congress a success. It must also be remembered that the organisation in detail of the excursions—not to speak of the banquets—certainly required months of preparation.

The congress opened with a general assembly in the Town Hall, where we were greeted by the Mayor of Prague and the Rector of the University. There were present as delegates or members of the congress representatives from America, Britain, Czechoslovakia, France, Holland, Italy, Poland, Russia, Ukraine, Yugoslavia, etc. In the evening we were all taken to the opera.

Monday, Tuesday and Wednesday—both mornings and afternoons—were devoted to the work of the sections and to studying the museum collections.

For the purpose of the congress, Anthropology is divided into the following sections: Physical Anthropology, Prehistory, Ethnology and Folklore, Psycho-Sociology, including Criminology, Eugenics, Anthropogeography including Linguistics. As Ethnology and Folklore formed too small a section they were combined with Prehistory.

The work of the sections consisted in listening to a number of interesting papers, which were followed by discussions. It is in this connection only that the congress must be criticised. The work of the Prehistoric section at any rate—and it appears that the same could be said of the other sections—was in a certain amount of confusion. Work began sometimes nearly an hour late, involving hurry and no time for proper discussions; there was no order kept in which the papers should be read, so that no one knew what was coming. No limitation of time was enforced and papers were allowed to drag on to any length. One is sure these remarks will be taken in good part and it is because these international congresses are so extremely useful in bringing workers of different nations together that it is worth while trying to suggest improvements. For the next congress the following arrangements might with advantage be introduced: (1) Previous editing of papers in respect to length, which should not exceed 15 minutes on an average; (2) A definite order for the reading of the papers to be supplied, and kept to; (3) Strict punctuality to be observed in beginning the various meetings.

But the most interesting part of the congress without a doubt was the excursions. We all moved to Brno (= Brünn) in Moravia, visiting some Bronze Age tumuli on the way. At Brno we were received by Dr. Absolon and his wife and visited the collections in the museum from Predmost and other Moravian sites. We were also taken to dig in a newly discovered site some forty miles or so away at Unter Wisternitz. Then there were pleasant trips to the Moravian caves, and to the monastery where lived and worked the great Mendel. Finally a harvest *fête* on the borders of Moravia and Slovakia was attended, where the inhabitants, all in national costume, set up a sort of "maypole" over 120 feet long, composed of three trees clamped together end to end. This was upraised without the aid of ropes and threw an interesting light on how the large stones of megalithic buildings were set up. In this case the tree was laid in the V of two pairs of scaffold poles bound together at their ends, which were slowly raised by a large number of men, there being one man as directing captain.

Of the various collections studied, the one from Predmost was, naturally, the most important. The finds include some twenty, as yet unpublished, skeletons—two being quite complete; flint and bone instruments; and a rich fauna, including a quantity of mammoth bones and ivory. The skeletons show mixed characteristics, *e.g.*, the forehead shows a tendency to develop brow ridges, but there is a chin, etc. The limb bones show extreme platynemia and a third trochanter is present. The



sides of the teeth have, in one instance at any rate, been worn down in a peculiar way, due, it is suggested, to the custom of keeping in the mouth one of the many round pebbles that have been found so frequently in this deposit.

The industries are clearly Upper Palæolithic in character and are classed as Aurignacian, Solutrean (the major part) and Magdalenian, though there does not seem to have been any clear stratigraphy made out.

There are gravette points and plenty of the usual Upper Palæolithic scrapers and awls, etc. A few "laurel leaves" have been found, but these, together with some of the other tools, rather recall an Upper Mousterian technique, and Mousterian industries have been recognised elsewhere in Moravia. Several large round, holed, sandstone discs, as well as necklace beads (said to be made from the bones of a Tertiary snake) have been found in the deposit. The bone industries show many peculiarities. There have been found a sort of glorified two-pronged fork, long curved spatulæ or spoon-shaped tools, with knobs for handles, bone chisels hafted into long thigh bones, etc. Many of the bone and ivory objects are decorated, usually with geometric pattern designs, though conventionalisation—*e.g.*, the stylised woman—is not unknown. There are also sculptures, including the well-known mammoth, several human forms developed from phalange bones, and a sort of face made from the head of a mammoth's femur. All the above are classed as Solutrean in age by the local authorities. *Bâtons de commandement* occur too, but these are classed as Magdalenian in age.

Personally, however, one feels that the prehistorian is dealing with another area and with different conditions to those in France. Thus it would appear safer simply to class the Predmost cultures as Upper Palæolithic—most nearly related to the Upper Aurignacian—but showing certain Solutrean influences (probably from Hungary) and, at a later date, Magdalenian influences, no doubt from France.

There are collections from several other Moravian sites, the most important being Unter Wisternitz, some forty miles to the south-west of Brünn, where a sort of Upper Aurignacian occurs in the loess, with gravette points and small notched



SMALL NOTCHED  
BLADE FROM UNTER  
WISTERNITZ.

blades. There was a Magdalenian influence about, however, for little dentated blades of the Bruniquel type have been found, as well as a tiny black sculpture representing the head of a bear.\* This Magdalenian influence appears also at other sites in the district, where, although the industry remains for the most part Upper Aurignacian in character, the decoration on bone tools, etc., clearly owes much to the early Magdalenian of Western Europe.

At Brünn itself was found the famous burial with the ivory statuette—much flatter in general appearance than would appear from the reproductions. From the same locality there were also necklace beads and a large holed sandstone disc. These finds are all in the Brünn Museum.

One can but conclude from a study of the finds in this area that an Upper Palæolithic folk arrived—no doubt from the West—into a Mousterian (?) *milieu* and developed there on its own, though influenced by the Solutreans of what is now Hungary and by the Magdalenians from the West. Once again prehistorians have to remember that the evolution of prehistoric cultures all over Europe has not been uniform and that France is only one region. Everything elsewhere was by no means completely modelled on the French type.

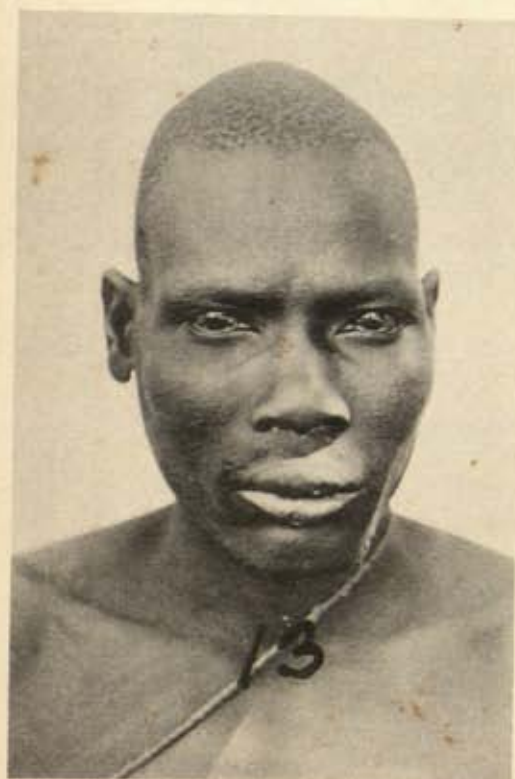
M. BURKITT.

\* Near by has been found a tiny sculptured mammoth, red in colour, now being studied in Vienna.









A PSEUDO-MONGOLIAN TYPE IN NEGRO AFRICA.



## ORIGINAL ARTICLES.

With Plate M.

Africa: Mongolism.

Seligman.

**A Pseudo-Mongolian Type in Negro Africa.** By Professor C. G. Seligman, F.R.S. With Plate M. 130

The object of this note is to draw attention to the occurrence in the far southern Sudan (Mongalla Province) of a not inconsiderable number of healthy, mentally normal individuals having narrow eyes, often with a well-marked epicanthic fold. The face may be broad and flat, with high cheek bones, and the bridge of the nose may be low and broad; the nose itself short and appearing rather infantile in form. I have not enough measurements of the type to be more precise, but No. 311 on Plate M is as good an example as I have seen. Whether description and photographs are successful in conveying a general idea of the type this certainly presents a definite and striking impression in the flesh. Nor is the type so rare and so little obvious as to be recognised only by a trained observer: plenty of laymen were ready to make the pun "Mongalla is Mongolia." Two of the photographs reproduced (Nos. 311 and 214) are of men of the Madi tribe, but the type also occurs among the Bari and the Latuka—though I cannot recollect such well-marked examples—and, as Mr. Driberg informs me, among the Didinga.

Further north I have seen less well marked examples of what I take to be variation in the same direction, i.e., individuals with eyes having a narrow palpebral fissure and a more or less well developed epicanthic fold. These occur among the Nuba of Southern Kordofan and among the "Hameg" of Dar Fung; among the former, particularly narrow eyes (as in the woman No. 31) are not very uncommon, though I cannot say whether an epicanthic fold is usually present in these subjects. The provenance of the subjects whose photographs are reproduced is as follows: Nos. 214 and 311 are Madi, while Nos. 13 and 31 are Nuba, both from the Lafafa community of Jebel Eliri.

I may add that these pseudo-Mongolians are not confined in Africa to the southern Sudan, for while in Mongalla Province I received a letter from Mr. C. K. Meek, then in charge of the census in Northern Nigeria, containing the following allusion to the subject:—"I have . . . formed a curious impression, absurd as it may seem, of Mongolian influence in these parts at some time. One sees so often the oblique eyes and high cheek bones of the Mongol . . ."

In the present condition of our knowledge I hold it improbable that the condition described has anything to do with Mongolian or even Bushman ancestry. Rather do I regard the occurrence of a more or less well developed type hitherto generally regarded as proper to the Yellow Race (at least in adults) in a small but not negligible number of healthy Black Africans in Central and Western Africa as an interesting example of the independent origin of variations\*; an example which may even hint at the mechanism of race formation, and I would suggest that the officers of the African Civil Services would benefit science if they would record, if possible with photographs, any marked examples they may meet.

C. G. SELIGMAN.

Pacific: Ethnology.

Haddon.

**Pearls as "Givers of Life."** By A. C. Haddon, Sc.D., F.R.S. 131

As Mr. W. J. Perry is convinced that "one of Elliot Smith's greatest services to knowledge has been his recognition of the rôle of man's search for

\* As e.g., hyperdactyly, though whether negro pseudo-Mongolism tends to be hereditary I cannot say.



" 'life-giving' substances in the development of civilization " and that this is " one of the most important generalizations ever made in the study of human society " ("The Children of the Sun," 1923, p. 383), it is necessary that this generalisation should be fully discussed. I propose here to limit myself to the subject of pearls, about which a good deal has already been written by the adherents of this " school."

Professor G. Elliot Smith says, " Hence pearls acquired the reputation of being " 'the givers of life' *par excellence*, an idea which found literal expression in the " ancient Persian word *margan* (from *mar*, 'giver,' and *gan*, 'life'). This word " has been borrowed in all the Turanian languages (ranging from Hungary to " Kamskatchka), but also in the non-Turanian speech of Western Asia, thence " through Greek and Latin (*margarita*) to European languages.\*

" \* Dr. Mingana has given me the following note :—' It is very probable that the Græco-Latin " '*margarita*, the Aramæo-Syriac *margarita*, the Arabic *margan*, and the Turanian *margan* are " 'derived from the Persian *mar-gār*, meaning both " 'pearl' and " 'life,' or, etymologically, " " 'giver, owner, or possessor, of life.' " The word *gār*, in Zend *yār*, is thoroughly Persian and " 'is undoubtedly the original form of this expression.' "—("The Evolution of the Dragon," 1919, pp. 156-7.)

On this point I naturally consulted Professor E. G. Browne (Sir T. Adams's Professor of Arabic in the University of Cambridge and the recognised authority on Persian), and he informs me that "*Marjān* means 'coral,' not 'pearl.' Its " Persian origin is doubtful; it occurs early in Arabic, but is suspected by some " Arab lexicographers of foreign (probably Persian) origin. It has nothing to do " with the words for pearl—*margarites* (Greek), *marwārid* (Persian), *mere grot* (Anglo-Saxon). *Mar* does not mean 'giver'; if one wanted to make wild etymological " shots one would rather connect it with the root *marg*, 'death,' *murdan*, 'to die,' " though of course it has nothing to do with either. Also in a Persian compound " meaning 'life-giving,' the word 'life' would come first and the root of 'give' " last, e.g. *jān-bakhsh*, 'life-giving.' I find, however, that Dozy ("Supplément " aux Dictionnaires Arabes," II, pp. 578-9) says that *marjān* originally meant " 'pearl,' though now always 'coral'; he appears to derive it from the Greek " *μαργαρίτης*. He refers to the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, " III, p. 318."

Professor A. A. Bevan (Lord Almoner's Professor of Arabic) informs me that " the Arabic words *durr*, 'pearls' and *durrah* (or *durrat*), 'a single pearl,' properly " mean 'drops,' 'a drop.' They often occur in old Arabic poetry; in particular, " tears are compared to pearls falling from the thread on which they have been " strung. The Persians also use *durr* for 'pearls,' but this is borrowed from the " Arabic. *Lu'lu'* is another Arabic word for 'pearls.' I can throw no light on " its original meaning; it may possibly be derived from some foreign language. " As for the Arabic *marjān*, I think that Dozy is no doubt right in saying that " it is derived from the Aramaic *margānūthā* (or *margālūthā*), 'pearl,' which is itself " derived from the Greek *μαργαρίτης*. The Arabic lexicographers usually explain " *marjān* as meaning 'small pearls,' but there is evidence that it was also used, " at least as early as the twelfth century A.D., for 'red coral' [see az-Zamakhshari's " 'Commentary on the Qur'ān,' chap. 55, verse 22]. How this change of meaning " took place, I cannot say. In modern times it appears always to mean 'coral.' " The notion that *marjān* ever meant 'giver of life' seems to me to be utterly " preposterous. There is, so far as I know, no Persian word *mar* meaning " 'giver.'"

In seeking to account for the great activity of "the original colonizers of Oceania" in certain districts as compared with others, Mr. Perry ("The Children of the Sun," p. 76) says: "What is the cause of the great activity round Tahiti



" . . . when the fertile soil of New Zealand lay ready for occupation? . . .  
 " Why were the Paumotu more highly favoured than the Gilberts or the Ellice  
 " Islands? Why was Penrhyn Island chosen as a site for megaliths rather than  
 " the others in the vicinity? What is the difference between New Caledonia and  
 " New Zealand that their cultural history should be so different?"

" Sketch maps Nos. 4, 5 and 6 show that the distribution of pearl-shell agrees  
 " well with that of the archaic civilization. The Islanders have always been  
 " famous for their love of pearls and of pearl-shell. According to Jackson, 'In  
 " ' the Pacific Islands pearls and pearl-shell seem to have been appreciated for  
 " ' centuries. Among the native ornaments noted by Captain Cook at Tahiti  
 " ' were feathers, shells and pearls; but the latter were worn,' so he says, 'chiefly  
 " ' by the women'." [J. Wilfred Jackson, "Shells as Evidence of the Migrations  
 " of Early Culture," 1917, pp. 109.] On p. 77, Mr. Perry goes on to say: "On the  
 " map are marked the places where the pearls are, or have been, fished. The list  
 " of places where pearl-fisheries are reported agrees with those of megalithic  
 " remains, irrigation and other signs of the presence in the past of the archaic  
 " civilization," then follows a long list of localities in the Pacific, including Torres  
 " Straits. He adds: "Some features of this distribution need notice. In the  
 " first place, I suggest that, since the two distributions agree so closely, the first  
 " colonizers of the Pacific were led by their desire for pearls, and settled where  
 " they found banks of the shells that yielded them what they sought. The presence  
 " of the early folk is indicated by that of megalithic monuments, stone  
 " images and irrigation systems. These are absent in those places where no  
 " pearls are reported. [It is noteworthy that in Torres Straits, a great *modern*  
 " pearl-fishery, megalithic monuments and irrigation systems are totally absent.—  
 " A. C. H.] Since these latter groups are now inhabited, the inference is that the  
 " first colonizers of the Pacific avoided them because they contained no pearls,  
 " and not because climatic reasons prevented settlement.

" If the people of the archaic civilization in the Pacific were pearl-fishers,  
 " their most important settlements would be in places where pearls were most  
 " abundant. Writers on the pearl-fishing industry are unanimous on two  
 " points. First, that pearl-fishing is the chief industry of the Pacific; and  
 " secondly, that the Society Islands constitute the most important centre" (*l.c.*,  
 " p. 77).

It is obvious that the writers referred to, Kunz and Stevenson,\* are dealing  
 solely with modern conditions; and I would ask Mr. Perry to state any evidence  
 that pearls were collected, valued or worn in any part of the Pacific, including  
 Torres Straits, but with the exception of the Society Islands, before the arrival of  
 European pearl-fishers and their followers.

When speaking of New Zealand, Mr. Perry (*l.c.*, p. 80) says: "the comparative  
 " lack of pearls in the sea around the island and in the rivers," but he has overlooked  
 the statement by J. Wilfred Jackson (*l.c.*, p. 110): "In New Zealand, owing to  
 " the absence of the true pearl-shell, the Maories made use of '*pawa*' [the correct  
 " word is *pāua*] (*Haliotis iris*) as a substitute for the flashing nacre of the  
 " '*Avicula*' [in the manufacture of fishhooks]. I have been assured by students  
 of Maori ethnography that there is no word for pearl in their language, as indeed  
 might be expected.

The following information is extracted from "The Discovery of the Solomon  
 Islands by Alvaro de Mendaña in 1568," edited by Lord Amherst of Hackney  
 and Basil Thomson. I. London: Hakluyt Society, 1901.

In the narrative of Hernando Gallego it is stated that they saw on the island  
 of Veru, close to Ysabel, which Gallego named Isla de Jorge, and which is now

\* "The Book of the Pearl," G. F. Kunz and C. H. Stevenson. London, 1908, p. 189.



known as Tuilagi or St. George "several pearls which the Indians brought and " which they did not seem to think much of " (p. 33).

In the narrative of Pedro Sarmiento, under the date of 20th March, 1567, he says: "In the port of La Estrella [in Santa Ysabel de la Estrellâ] there is " much coral, *lucaios* of various colours, specimens of large pearls, a very " transparent crystal, and many indications of gold " (p. 88). The editors in their Preface, pp. lx-lxii, give satisfactory evidence for their statement: "It will " thus be seen that none of the Spaniards saw even what alluvial miners call " 'colours' of gold." As for the pearls, no statement is made that the Solomon Islanders fished for or utilised pearls; the "large pearls" just mentioned may very well be pearl-shells. In an anonymous Report in the narrative of Alvaro de Mendaña we read (p. 146): "There was no sign of silver or gold among the " natives; it is held as certain that there are pearls, because we found some " shells of pearl-oysters, but the water was too deep for us to put it to the proof." In a second narrative, Mendaña says of Malaita: "They also say there are " pearls. I brought back the shell of an oyster in which pearls are found, and, " considering its size, they cannot fail to be good ones" (p. 181). Mendaña showed a native of Ysabel "pearls and grains of gold; he said that there were " many pearls in the sea, and they call them *dau*" (p. 172). On p. lxxxiv the editors give *dani* as the Estrella name for pearl; the present equivalent is *davi*, meaning pearl-shell, "the *n* for *v* being inserted by the copyist." "Interpreters" who were kidnapped from Santa Catalina and Santa Ana stated when they were brought to Lima "that there was much wealth in gold, and pearls, and spices in " those islands and in others near them" (p. 92). This evidence is unreliable, as the natives did not know anything about gold.

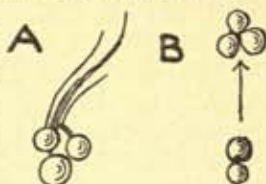
It is obvious that natives who prized pearl-shell and fished for it must have come across pearls, and it is also evident that the Solomon Islanders did not care about or utilise pearls, but as the Spaniards wherever they went were anxious to obtain pearls the natives naturally would bring them for barter.

As mentioned above, the Society Islanders seem to form the sole exception to the original employment of pearls by any natives of the Pacific. The evidence for this is perfectly conclusive.

The earliest account known to me is by S. Wallis, of H.M.S. "Dolphin": Otaheite, July, 1767: "Their ornaments are feathers, flowers, pieces of shells, " and pearls: the pearls are worn chiefly by the women, from whom I purchased " about two dozen of a small size: they were of a good colour, but were all spoiled " by boring. Mr. Furneaux saw several in his excursion to the west, but he could " purchase none with anything he had to offer" ("Hawkesworth's Voyages," Dublin, 1775, I, p. 212). Lt. Cook of H.M.S. "Endeavour," Ulitea (Raiatea), Aug. 3, 1769, says: "One of these girls had in her ear three pearls; one of them " was very large, but so foul that it was of little value: the other two were as big as " a middling pea; these were clear, and of a good colour and shape, though spoiled " by the drilling." He goes on to say that Mr. Banks could not persuade her " to part with them at any price." ("Hawkesworth," *l.c.*, II, p. 102). In Capt. W. J. L. Wharton's edition (1893) of "Captain Cook's Journal of his First Voyage," a literal transcription from the original MSS., p. 94, concerning the Tahitians we read: "They have Earrings by way of Ornament, but wear them " only at one Ear. These are made of Shells, Stones, Berries, red pease, and some " small pearls which they wear three tied together." Sydney Parkinson, who was "Draughtsman to Joseph Banks, Esq.," in his description of the natives of Otaheite ("A Journal of a Voyage to the South Seas in His Majesty's Ship, 'The Endeavour'," London, 1773) says (p. 18): "Some of their ear-rings (see pl. xiii, " fig. 13 and 14) are made of mother-of-pearl cut into various figures, which are



"tied to their ears by human hair, curiously plaited by the women. They also tie three pearls together with hair, and hang them on their ears (see *ibid.*, fig. 26)." On p. 77 he describes fig. 26 as "Three pearls tied together by plaited hair, worn as an ornament for the ears: each pearl was about the size of a small pea." [Fig. A]. "A native of Otaheite" is depicted on plate iii from whose left ear depends a string of what may be three pearls strung close together, and on plate xi is shown "An Heiva, or kind of Priest of Yoolee-Etea, & the Neighbouring Islands" who has an ear-pendant which may be three pearls similar to those here illustrated.



Fortunately we have in the University Museum of Archaeology and of Ethnology an ear-ornament from Tahiti which forms part of our "Cook Collection." This and the other specimens were collected by Captain Cook, and given by him to the Earl of Sandwich, who subsequently presented them to Trinity College, Cambridge, and finally they were deposited on loan in the Museum by the Council of Trinity College in March, 1914. The ornament consists of three drilled pearls tied closely together [Fig. B, nat. size]. The pearls are of good lustre but somewhat yellowed by age.

In "The Quest and Occupation of Tahiti by Emissaries of Spain during the years 1772-1776," translated and edited by B. G. Corney, Hakluyt Society, in Vols. I, II and III (2nd Series, Vols. XXXII (1913), XXXVI (1914), XLIII (1918) we find numerous references to pearls and pearl-shell, of which the following will suffice. "They all have their ears pierced, . . . some wear two or three small pearls strung on a thread therethrough. . . . They have a great fancy for our ear-rings (which they call *poe*)." The editor says in a footnote, "*Poe* properly means a pearl [but see p. 178]. Ear-rings with or without pendants are "*tapea taria*" (D. Boenechea, I, p. 330); [*tapea* = ring, *taria* = ear]. "In the matter of pearls, which they say are plentiful in these islands, what I [Andia y Varela] can state is that they are not found in Otahiti, but I saw there some of very good size brought from another island, although mostly of poor lustre owing to their practice of applying fire to the oysters in order to get them out. The natives are not unaware that pearls are reckoned precious: indeed, for a pair of pendants, or for six or eight pearls strung on two threads that . . . Upò . . . wore suspended from her ears, she asked what no person in either of the ships could give her. . . . Wishing to know the islands where pearls do occur, I succeeded in learning that they are nineteen in number." He enumerates them, but the editor in a footnote says, "This is, however, merely a list of islands—not of pearling islands. The Tahitians of old derived most of their pearls from Ma'atea, whither they were brought from Ra'iroa and Fakarava; with some from Anaa and other atolls of the Tuamotu cluster" (II, p. 300). Maitea is the easternmost of the Society group, the other three islands are in the western Paumotu archipelago. For abundance of pearls in Ra'iroa (Rangiroa), cf. II, pp. 388, 473. In a vocabulary (II, p. 15) we find "*pearl, e poe*; pearl-shell, *parau*." At Tahiti "They do not value either gold or silver; but pearls are of great price in their sight, and, although of bad quality and small size, they collect a few with which the women adorn their ears" (II, p. 473). M. Rodriguez says, "I saw the pearls belonging to Otautiti . . . with two more of the size of a chick-pea, the two large ones being equal to an almond. They are defective . . . But the two of the size of a chick-pea have no defect, other than being drilled clumsily. All of them can be easily obtained by barter" (III, pp. 110, 111).

So far as I have been able to discover the Society Islanders were the only Polynesians who had mastered the difficult art of boring pearls, and it is not easy



to understand how otherwise pearls could have been worn. There is no evidence to prove that pearls had any special significance and their value may very well have been due, apart from their beauty, to the labour and skill required to perforate them.

If the "people of the archaic civilization" had such a craving for pearls, it would seem inexplicable why the use of pearls should have disappeared (except in the Society Islands) by the time when the early voyagers explored the Pacific, though in most places other elements of this "archaic civilization" were then in full swing.

Again, in Polynesia there is no general word in current use for pearls as such, but if they were so highly prized it would seem probable that there would be such a word and, furthermore, it should have been widely spread.

One naturally turns to Mr. S. H. Ray for Oceanic linguistics and he has kindly given me the following information :—

"I think that *marjan* is the Arabic for 'coral.' The Malays have it as *marjan*, 'coral.' The Malay for a pearl is *mutiyara*, from the Hindustani *mutiya* [*motiya*]. The Malay for the nacre is *indung-mutiyara*, lit. 'mother-of-pearl.' Other Indonesians have the same word. Batak, *mutiha*; Olo Ngaju of Borneo, *mutiaran*; Makassar, *mutiya*, pearl, and *kuli-mutiyara*, shell or skin of the pearl, i.e. nacre. In the Philippines the Spanish is used, 'perlas.' Barbosa mentions pearl-fishing in the Sulu Islands; he was there before 1511 A.D.

"The pearl-shell has a name in Polynesian languages, and the pearl has a name formed from it.

Tonga : *mata 'i tofe* = eye of pearl-shell; *jifa* = nacre.

Samoa : *tifa* = mother-of-pearl.

Niue : *ute-tifa* = tail of pearl-shell or nacre.

Rotuma : *maf-ne-tifa* = eye of the *tifa*."

[Tahiti : *poé*, beads, ear-pendants, pearl.

*pahuvi*, pearl-shell; *pahua*, a kind of pearl-oyster; *paovi*, *paoro*, *etu*, nacre.

Marquesas : *uhi*, knife, shells employed in cutting, oysters, nacre.]

I found these Tahitian and Marquesan words in Humboldt's vocabularies in "Aperçu de la Langue des Iles Marquises et de la Langue Taitienne" by J. C. E. Buschmann, Berlin, 1843, but I have turned the French *ou* into *u*. Mr. Ray informs me that "*pahuvi*, *pahua*, *paovi*, and *etu* are not in Jaussen's Dictionnaire, and *pahou* is given as = 'peler, écorcher' (to pare, to peel off, etc.). The word "*uhi* in Dordillon's 'Grammaire et Dictionnaire de la Langue des Iles Marquises' is given for 'huitre à nacre.' In Paumotu, Tahiti and Maori *uhi* is the instrument for puncturing the skin in tattooing."

"The translators of the Gospels introduced the word *penina* for pearl and ruby in Samoa, and *penina* for ruby in Tahiti. In the New Testament *poe* is the rendering for 'pearl' in Tahitian. In the O.T. *poe* is used for 'ruby' and *peninima* also for rubies. In one place in the Old Testament, pearl is rendered *gebese*, the Hebrew word for ice or crystal. *Peninima* is the Hebrew *peninim*, pearls [or coral]."

There seems to be some uncertainty how the Hebrew word *peninim* or *peninnim*, which occurs in the O.T., should be translated; 'rubies' is probably incorrect, 'pearls' is usually given as an alternative, but 'red coral' appears to be the best rendering. Pearls, *μαργαρίτης*, are mentioned in the N.T. in several places.

"In the Hawaiian Gospel 'pearl' is translated *nomi*. In Lorrin Andrews' Dictionary, *moni* = 'pearl, pearl of the oyster, hard centre of the eye, hard face of a watch, eye of a fish.' In several Polynesian languages it means 'to swallow, 'suck up'."



Mr. Ray also adds, "*Poe* does not mean a pearl, but a round ornament, in Hawaiian, *poe* = round, circular; *poepoe* = globular." Jaussen in his Tahitian Dictionary gives: *poe* = 'perle, collier, pudding'; *parau* = 'nacre' [the term 'perle' applies equally to a pearl or any kind of bead]. If *poe* means a spherical object of any kind, it would naturally be applied to a pearl.

"The same fashion of naming the pearl is found in Melanesia.

"The Spaniards in 1568 said that *davi* was the word for pearl in the Solomons. They meant *davi*, which is the Ysabel name for the gold-lipped pearl shell.

"Ysabel: *kindoru i davi* = egg in the pearl-shell.

"Florida: *tolu ni davi* = egg of the pearl-shell.

"Malaita: 'u'u *maai dehi* = round eye in the pearl-shell.

"Ulawa: 'u'u *maani dehi* = round eye of the pearl-shell.

"San Cristoval: *kora i dahi* = round thing of the pearl-shell.

"Lau (Mwala I.): *fufue dafi* = round thing of the pearl-shell.

"Florida and Banks Is., Mota: *wo-vila* = fruit of the *vilavila*, or pearl-shell.

"Central New Hebrides, Nguna: *pati ni vilavila* = tooth of the *vilavila*.

"Fiji: *mata ni dhiva* = eye of the pearl-shell (*dhiva* = *jifa*, and *tifa* in Polynesia).

"Southern New Hebrides: there is no name for pearl, so 'perl' is used in translating the Gospels.

"Loyalty Islands: translators use 'penina,' from the Hebrew *peninim*.

"Torres Straits: *mai* is the name for pearl-shell, we did not find a name for pearl in the western language, in the eastern it is *mai-tereg* = tooth of the pearl-shell."

The foregoing suggests that everywhere the pearl-shell itself was the essential object, and, as Mr. Ray says, "the pearl has a name formed from it." No one doubts that the pearl shell is prized throughout the Pacific, and so far as we know always has been. If, however, the pearls were a prime object of interest, it is difficult to understand why the name for pearls, which *ex hypothesi* the "first colonizers of the Pacific" must have had before they adventured into the Pacific, became obsolete when they arrived in that ocean and that made-up words were substituted.

The real point at issue is whether the reputed bearers of the "archaic civilization" were the first occupants of the Pacific as claimed by Prof. Elliot Smith and Mr. Perry. The ethnological and linguistic evidence clearly points to Melanesia having been populated by Ulotrichi (Papua, including short varieties or Negritos) before the arrival of Austric-speaking peoples from Indonesia. Subsequently, Polynesia was overrun by Austric-speaking peoples. The protagonists of the "archaic civilization" do not appear to have faced the racial and linguistic problems, which, though essential to the discussion, are distinct from the possible introduction of one or more cultures, possibly by a limited number of persons who may have had little effect on racial characteristics.

In a letter to me, Mr. Ray says he does not think that the "first colonizers of the Pacific" lost the name for pearls. "They never had it." (In this I am in agreement.) He goes on to say, "They went to the Pacific before the inhabitants of Indonesia learnt their value from the Hindoos, even before the migration to Madagascar, where the words *mutiara*, *mutiya* are not known. Malagasy has 'voahangy' (pronounced *vua-hangi*); both *hangy* and *voa-hangy* = 'coral beads,' (*voa* = fruit). When the Indonesians learnt the value of what the Hindoos called *mutiyara* (a pearl) they looked for its shell, i.e., *kulit*, or its mother, *indung*. Hence, Indonesian names for pearl-shell, *lit*, 'skin' or 'mother' of the *mutiyara* or *mutiya*."

"These Malay explanations are those usually given. Wilkinson's 'Malay Dictionary' has: '*Mutya*, Sansk. *mutja*, a pearl, also pearl shell; *mutiyara*,



"Sansk. *mutja* + *hāra*, a pearl, *indong-mutiyara*, pearl oyster.' I believe these so-called Sanskrit words are *Malāicisms*. The real Sanskrit being: *mukta*, pearl; *mukta-gāra*, pearl-abode = pearl oyster; *mukta-mātri*, pearl-mother = shell; *mukta-hāra*, string of pearls."

Kunz and Stevenson (*l.c.*, p. 213) say: "Throughout Malaysia, including the Philippine Islands, the pearl is known as *mutya*, *mootara*, or a similar name, closely resembling the Sanskrit *mukta* or the Cingalese *Mootoo*, indicating the source of the influence originating the fishery and the trade."

John Crawford says: "The names for the pearl in Malay and Javanese, *muti*, *mutya* and *mutyara*, are all Sanscrit, and I am not aware that in any of the Malayan languages there are native names for it. Occasionally the Persian [really Arabic, see p. 173] word *lulu* is used . . . From this we may suppose that both the pearl and mother-of-pearl were most probably made known to the Malayan nations by the Hindus." ("A descriptive Dictionary of the Indian Islands and Adjacent Countries," 1856, p. 330).

Professor E. J. Rapson informs me that, "*muktā* is the ordinary Sanskrit word for 'pearl.' *Mutiya* is not, so far as I can ascertain, Sanskrit, but either (1) it is intended for the Hindustani *motiyā* (given by Platt as a dialectical form of the more common *motī*, 'pearl'; the Sanskrit original of this would be *mauktika*, which is simply the adjectival form of *muktā*: or (2) it is intended for *mutya* to which the meaning 'pearl' is given in a Sanskrit dictionary of synonyms. But it is an out-of-the-way word, which, apparently, never occurs in literature. In fact, the ordinary Sanskrit scholar would not know of its existence. *Mārjana* means 'cleaning, making bright' in Sanskrit and has nothing to do with pearls or coral. The ordinary Sanskrit words for 'coral' are *vidrūma* and *pravāla*."

Mr. Perry (*l.c.*, p. 389) quotes Mr. M. Bloomfield ("Hymns of the Atharva Veda, the Sacred Books of the East," XLII, Oxford, 1897, p. 62), who gives a translation of a hymn under the heading "The pearl and its shell as an amulet bestowing long life and prosperity." Mr. Perry naturally takes this to mean the pearl of the pearl-shell (*Margaritifera*). Professor Rapson writes, "the word for 'pearl' in the Atharva-Veda is *kṛṣṇa* and the word for 'shell' is *ṣaṅkha* = Greek, *κόγχη* = Latin, *concha*." Mr. J. Hornell says ("The Indian Conch (*Turbinella pyrum*, Linn.) and its relation to Hindu Life and Religion, 1915"): "To all Hindus the important position occupied by the Sacred Conch (*Turbinella pyrum*, Linn.), the *Sankha* of Sanscrit literature and the *Sanku* or *Chanku* of Tamil speech, in their religion is a commonplace of everyday knowledge" (p. 2). He points out that the Indian names are all obviously variants of one root which appears to be of Aryan origin. "It is probable that when the Aryans swarmed into India they applied their generic name for shells to the great white conch, so conspicuous an object in the hands of their enemies . . . To them it was the shell of shells—the one shell above all others worthy of honour and even of worship. In the oldest Tamil literature the word is found in its present-day form, but almost as often the shell is termed *valai*; the latter is probably the original Tamil or Dravidian name, a term which has now come to be displaced by one derived from the Sanscrit *sankha*" (p. 12). Although enormous numbers of the conch are fished for, "it is exceedingly rare for a pearl to be found. The colour varies from porcelain white to pale pink" (p. 42). Mr. Hornell gives an interesting account of the use of the conch in the religious and social life of all classes, whatever their religion may be (*cf.* Hornell, *Madras Fisheries Bureau Bull.* 7, 1914, and *Mem. As. Soc. Bengal*, III, 1913, p. 407).

Some interesting notes about the traditional folklore concerning pearls and their origin are given by W. D. Whitney, *Atharva-veda Samhitā* translated (ed. by C. R. Lanman in the Harvard Oriental Series, VII, 1905, p. 161).



Prof. Rapson, however, says that so far as he can ascertain *ṣaṅkha* is a word of general meaning = "shell," and his impression is that any sort of shell was thus denoted. In the passage quoted from the Atharva-veda it presumably means "oyster-shell," and he does not think there is any evidence to justify a limitation of the meaning to "conch-shell." The special word for "oyster-shell" is *ṣukti*, which is not found in the Rig-veda, and he doubts if it occurs in the Atharva-veda.

"*Kṛṣṇa* appears to be an old word which dropped out of use. It is the only form used in the Rig-veda for 'pearl.' *Muktā* does not occur in the Rig-veda. It may have been the popular, as opposed to the literary, word and this may possibly explain its absence from the sacred hymns. The Indian commentator on the Rig-veda (Sāyana, 14th cent. A.D.) is considerably puzzled by *kṛṣṇa*. In one passage he suggests that it means 'gold,' but the passage from the Atharva-veda and others in the Rig-veda leave little doubt that it means 'pearl'."

I am not in a position to say whether the peoples of Indonesia in the earliest days utilised pearl-shell, probably they did, as Papuans and Melanesians wore and made use of pearl-shell when we first hear of them, and it is likely that a material so easy to obtain and so easy to work would early have engaged their attention; further, in addition to its æsthetic value it had a practical importance in the manufacture of fishhooks. One would like to see evidence adduced that it was regarded in Oceania as possessing any magico-religious significance.

From the foregoing, it would seem that Mr. Perry overstated his case when he wrote, "That the Polynesians of old were seeking pearls stands beyond doubt; for, ever since Europeans have known of them, they have been engaged in pearl-fishing, and there is no reason for believing that they have ever done otherwise" (*l.c.*, p. 415).

I would like to express my gratitude to those friends who have helped me with their expert knowledge. A. C. HADDON.

*Postscript.*—I have obtained a partial answer to my question (p. 180), whether there is any evidence in Oceania that pearl-shell possessed any magico-religious significance in Oceania from "The Threshold of the Pacific," by the Rev. Dr. C. E. Fox, which was published after my paper was in print; cf. pp. 253, 260, 363.

A. C. H.

## Melanesia: Religion.

Hocart.

**Maternal Relations in Melanesian Ritual.** By A. M. Hocart, M.A. 132

Mr. Perry's "Children of the Sun" has drawn my attention to a passage in Dr. Seligman's "The Melanesians" (p. 363), of which I did not understand the significance at the time of reading the book. Dr. Seligman quotes Father Guis as saying, "The young men of a village may only marry the girls of their allied village. . . . By these words it is understood . . . a village that in every contingency and under all circumstances acts with another. For example, the folk of Beipaa (*veifa*) feed pigs and bring up dogs, but these pigs and dogs are not for them: they are for the village of Amoamo, their *ufuapie*, and in return the pigs and dogs of Amoamo come to Beipaa. When a death occurs at Beipaa a *taru* [feast] is given which is eaten by the folk of Amoamo, and when one of the latter dies the reverse takes place."

To understand the significance of this custom of breeding pigs for the allied village it is necessary to remember that throughout Melanesia pigs are not slaughtered just to provide meat for the daily fare; they do not "eat them nothing," to use a pidgin expression which translates a very useful Melanesian idiom; they slaughter only for feasts, and a feast means a religious ceremony. Dr. Seligman describes such a feast offered by the group in which there has been a death to their allied group or *ufuapie* (p. 361). When the mourning is over the *ufuapie* come to receive the feast. "The chief who is giving the feast comes forward laden with the limb of a pig and



" places it at their feet and then brings slabs of pigs' fat and other presents for them. Then he makes a speech. . . . 'Oh, oh, oh-h-h . . . you have come and we are filled with joy. . . . We know that our bananas are poor, our taro watery, our yams fibrous, etc., etc. All this we know, and are ashamed, but pity us rather than be angry with us.'"

This Mekeo ceremony corresponds to the Fijian "permitting of clothes," or, as we should say, "putting off mourning." This Fijian ceremony consists of a presentation of food and stuff by the group of the dead man to a group of relations; and as the descendants of brothers usually, after a few generations, intermarry and so become cross-cousins, the relations are usually maternal relations.\* This presentation is made with an apology somewhat like this: "Mm, a little feast. You know this land is a poor land; nothing grows in it; but what we have been able to find we have brought. If it is not enough, have pity, etc." The offering is prayed over by the recipients. The whole manner of presenting and receiving is the same as in an offering to the gods.

All these customs, then, can be subsumed under the rule that the "maternal relations eat the sacrifice," a rule which we have found in India† and in South Africa.‡

The Mekeo custom of breeding pigs for their *via-à-vis* is to be identified with the food taboos that exist between coast and hill people on the east coast of Viti Levu in Fiji. I must explain that each coast tribe stands to one or more tribes inland of them in the relation of coast and hill, or noble and *mbati* or tooth on edge; the "hill tribe" in its turn is "coast tribe" to one further inland, and so it goes on. This relation is called *veimbatiki*, or relation of noble and *mbati*. It involves certain food restrictions: thus the coast tribe may not eat fish in presence of its *mbati*, nor can the *mbati* eat pig in presence of the coast tribe; as for turtle and large fish, the coast tribe might not eat them at all, but had to send them to the *mbati*; if they ate it in secret, as often happened, and it was found out, they had their houses burnt down. Such a case is related by Fison in his "Tales of Old Fiji" under the title "How the Levuka men came up to Windward," only Fison has missed the point. It should be remembered that turtle and large fish such as *sanga* are not eaten at random, but always offered up; so we seem to have another case of the allied tribe eating the offering.

The same food restrictions are found to exist between tribes that are related as *veitambani*—that is, cross-cousins, literally "two sides." Sometimes the relationship is described as *veitambani veimbatiki*—that is, "cross-cousins who are noble and *mbati*." Inland the relationship of *veimbatiki* was defined as *veitambani*. Finally, I have almost invariably traced the relation of *veimbatiki* to intermarriage. These food restrictions are, therefore, restrictions as between two intermarrying groups, and we may bring them under the rule that "the maternal relations eat the offering."

A. M. HOCART.

## France: Archæology.

**Menhirs and Burials.** By C. Daryll Forde.

In a discussion of the Neolithic Period and Megalithic Civilisation in France and the British Isles in Vol. ii. of the "Cambridge Ancient History," Professor Peet, referring to the Megalithic monuments in Brittany, states that "The menhirs, whether standing simply or in alignments or in cromlechs, have no connection with burials." This is not correct, for the funerary character of certain menhirs is

\* In fact it would be hard to find any two related groups that have not intermarried; so much so that there could not possibly be a rule that the groups must intermarry, as the case that they are not related by marriage could scarcely occur.

† "Maternal Relations in Indian Ritual." MAN, 1924, 76.

‡ "The Uterine Nephew." MAN, 1923, 4.



undoubted. In Southern Finistère and Morbihan, for example, incinerated remains have been found at the foot of menhirs, together with all the typical *mobilier* that is found in the dolmens of Brittany.

In "Les Epoques Préhistoriques et Gauloises dans le Finistère" Du Chatellier records the results of diggings by himself and Dr. Fouquet in Morbihan and Finistère (page 31 ff.); referring to the menhirs of Southern Finistère he says: "Au pied de trois entre eux, ceux de Lesconil, de Kerlay, en Plobannalec, et celui de Prat-Palud, en Plomeur, nous avons trouvé des vases entiers, l'un d'eux avec des restes incinérés. Au pied de celui de Lavenael, en Plomeur, nous avons rencontrés un vaste dépôt de restes incinérés, accompagnés de fragments de poteries, d'une hache en pierre polie intentionnellement brisée, de pierres à concasser le grain, d'une fusaiole, d'éclats de silex et percuteurs." He also refers to a menhir in Seine-et-Marne beneath which a skeleton was found by Chouquet.

C. DARYLL FORDE.

## REVIEWS.

### New Zealand: Technology.

Ling Roth.

*The Maori Mantle (and some Comparative Notes on N.W. American Twined Work)*. By H. Ling Roth. Over 250 line illustrations and diagrams, and 22 plates. Bankfield Museum, Halifax, England. 1923. **134**

The Maori mantle is an object of considerable interest both from the technological point of view and as an illustration of the response of a migrating race to a new environment. It is, therefore, the more surprising that no one has, till now, attempted an exact study and detailed description of the technique of these remarkable fabrics. For, as Mr. Ling Roth points out, "diagrams in technical matters are as 'important as maps in geographical subjects'; and although interesting and detailed accounts of these garments have been given in recent years by Elsdon Best, A. Hamilton, and Te Rangihiroa, none of them are adequately illustrated. This deficiency has been made good in the present volume, which contains more than 250 line illustrations, drawn by the author himself, and 22 collotype plates.

Both in his diagrams and descriptions the author maintains that exacting standard of minute and accurate technical exposition with which students of his previous work, and more particularly of his studies in primitive looms, are already familiar. He has spared no pains to make this study as complete as possible, and in the introduction he has collected together and quoted verbatim all the more important passages of early writers bearing upon the subject. Although fresh variations of technique or ornamental design may yet come to light, it is unlikely that this volume will ever be displaced from its position as a standard work of reference. It contains, besides the historical introduction, a description of the raw materials and their preparation, and of the various types and techniques of the garments themselves. To the method of increasing the width of a mantle by inserting extra twined rows in the warp the author proposes to give the new term *insert* in place of *bias*, which has hitherto been incorrectly used in this sense. The volume terminates with an appendix containing a *catalogue raisonné* of 93 specimens, in which most of the ethnographical museums of Great Britain, as well as Capt. A. W. F. Fuller's private collection, have been laid under contribution. There are also some comparative notes on twined garments of the Indians of the North-West Coast of America. In a brief chapter of conclusions the author expresses his opinion that both Maori and Amerinds have been led by climatic conditions to develop these garments from a pre-existing knowledge of twined work, which, in its simpler forms in basketry and matwork, is of almost universal occurrence. The Maori may have taken over the invention from the earlier Melanesian inhabitants of New Zealand. There is no evidence of any similar garments from any other part of the world,



and, although certain coincidences of detail may be due to diffusion, "we may for the present consider these garments to have developed independently both in N.W. America and in New Zealand." Thus we would seem to have here an example, if not of independent invention, at least of the independent application to a new and similar purpose of a technical contrivance which, in its elemental form, is very widespread and probably dates back to a remote period.

We should like to take this opportunity of expressing our regret at Mr. Ling Roth's retirement, after many years' service, from the Curatorship of the Bankfield Museum, Halifax. The excellent collections in this Museum, particularly as regards spinning and weaving, are largely the result of his individual labour and energy in the face of great difficulties, and they deserve to be widely known. We hope that he may long continue by his researches to add to the debt, already considerable, under which he has placed all anthropologists.

H. J. BRAUNHOLTZ.

### Evolution.

Elliot Smith.

*The Evolution of Man.* By G. Elliot Smith, M.D., F.R.S. Humphrey Milford. Oxford University Press. Svo, pp. vi + 159. 8s. 6d. net. **135**

In this series of essays the author gives a consistent story of human evolution, laying the greatest stress on the peculiarly human trait—cerebral development. Mammals differ from all other animals in the possession of a neo-pallium, which is able in some, as yet unknown, manner, to record the results of past experiences and to put the influence of such knowledge at the service of the muscular system. In man this provides the vital mechanism that can be fashioned by education to perform and control an endless variety and complexity of movements, thus supporting the claim for "the intellectual respectability of muscular skill." The order of evolution has been an arboreal life, that freed the animal, and its brain, from the overwhelming predominance of olfactory stimuli, thus allowing the further organisation of the mechanisms for attending first to visual and then to auditory impulses. The great advance arose with the possibility of stereoscopic as well as binocular vision, which in turn led to a greater skill in movement and greater tactile discrimination. With greater knowledge came the use of sounds to convey intellectual as well as emotional signals, an evolution which has now reached the phase of the transmission from one to another at a distance by written language. The whole of the educational possibilities start from the growth of the prefrontal cerebral cortex, with which is concerned states of continuous attention. Traced up through the human stem of the primate tree, it is found that it is in the prefrontal parietal and inferior temporal regions of the cortex, which are the last to reach full development in the human child, that the precursors of present day man and his cousins were deficient. These anatomical researches link on to, and supplement the clinical investigations of modern neurologists, and especially of Dr. Head on cerebral localisation.

In his foreword the author traces the Primates from an origin in North America across the Eocene land bridges eastward to Europe and Africa and, with somewhat less certainty, westward to Asia. The central note is that, although several types of modification may have occurred, each step towards modern man must have had a single local origin. Later, when psychological factors come into play, there may be a transmission of culture, with a minimum form of transmission of race, those features only being accepted for which the recipients were, in a sense, already prepared. As there is no sign that evolution has in different areas produced identical forms by different routes, so we have no reason to suppose that identical implements or cultures could have arisen as spontaneous, sporadic creations of the human intellect, arising independently and simultaneously in widely differing parts



of the world. Those who have had to wrestle with the obstructions of human conservatism will find it difficult to believe that the transmission of culture from the earliest times could seriously be disputed.

The author promises a further exposition in the form of a text-book of Human Evolution, which will be welcomed by all.

F. C. S.

## CORRESPONDENCE.

Archæology.

Sollas.

*To the Editor of MAN.***"Ancient Hunters."**

SIR,—I VENTURE to ask your permission to offer some comments on a review of "Ancient Hunters," by Sir Arthur Keith, which appeared in the last issue of MAN.

The review opens with a mis-statement. It is inexact to say that I "threw" these [3] lectures into book form." The history of the work—in itself a matter of no consequence—will be found in the Preface to the 1st Edition.

The summary account of the progress of opinion on the question of eoliths seems to me to need some amplification if it is not to be misleading. It is true that Professor Breuil denied in 1912 that the "Sub-crag implements" submitted to him by Mr. Reid Moir had been shaped by man; it is also true that when he re-visited England in 1920 he admitted that some, not all, of these implements—the rostrocarinates were expressly excluded—were of human workmanship. But it should be pointed out that this change of opinion was effected by fresh evidence, and evidence of a different kind, which had rewarded Mr. Moir's persistent researches in the interval. In both cases Professor Breuil showed his usual perspicuity, but in one case the evidence was convincing and in the other not. For myself, I am in much the same position as Professor Breuil, and it required no more "courage" to admit the value of good evidence than to reject the bad. In scientific questions it is all a matter of evidence and inference. It would seem as if Sir A. Keith regarded a strict evaluation of evidence as a crime, and accuses me of "making amends." As I have no consciousness of guilt I have made no amends, and have none to make.

With the importance of the "psychological" factor—I should prefer to say the natural tendency to select—from which I do not profess to be free myself, I am more impressed than ever, and consequently I hope more on my guard against it.

I fancy Sir A. Keith does not properly appreciate the difficulty of investigations of this kind. I am now engaged in the study of the famous collection of flaked flints obtained by the late Mr. Westlake from Puy de Boudieu and other localities in Cantal, and I find it a most difficult task. It demands the closest study of minute details, and the constant exercise of the judgment. It is no work for a partisan whose zeal is likely to be out of proportion to his knowledge, and it is not assisted by rhetoric. Such phrases as "persecutor" or "champion of eoliths" may raise the temperature of a controversy, but are not likely to illuminate it. In 1915 Puy de Courney flints were rejected because the geological mind could not conceive the possibility of man being a member of the Upper Miocene fauna. Professor Sollas has now thrown his faunal argument to the winds. This is not the case. I still maintain a position which I believe is securely based on palæontological evidence. I have previously asserted, and I repeat the assertion, without fear of contradiction from those best acquainted with the facts, that, so far as we have evidence, "man," in the strict sense of the term, i.e., *Homo sapiens*, was not in existence till the middle of the last glacial episode.

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Quoting my expression of opinion that the balance of probability points to the conclusion that the Puy de Boudieu flints are the work of an intelligent being, Sir A. Keith infers that I believe they were made by "man"? No, that would be too daring an assertion, and so for "man" (the term his argument demands) we read a member of the "human family," as though these two were interchangeable terms. I thought I had made sure of not being misunderstood on this matter by calling attention, in my second chapter, p. 43, to the singular confusion which has arisen from the ambiguous use of the term "man;" but an ambiguity of terms has always been a favourite weapon with the sophists.

The charge made against me of injustice to Mr. Lewis Abbot arises from a difference in the appreciation of relative values. For my part, I do not consider that a find of doubtful—and in any case atypical—implements, which was followed by no consequences stands on the same level as Mr. Reid Moir's fruitful discovery. Here I may take this opportunity to add the name of Dr. Duckworth as a discoverer of worked flints in the Forest bed. These also may have been atypical, for Dr. Duckworth compared them with Mousterian implements.

We now come to the chronology, and here again we encounter terms that seem more appropriate to party politics than the discussion of a scientific question: "Progress and liberal"; "niggardly and retrograde"! Does the Reviewer imagine that geological time is at my own disposal to give or withhold as I please? There is a better reason than "fashion" for eschewing all attempts to give dates to geological events on insufficient grounds. It is the objection that honest men have to uttering base coin. A story is told of a French quarryman who, on being reproached for having palmed off a forged *boucher* on a stranger, excused himself in this way: "People come and want a *coup-de-poing*. I say I have none. They will not believe me. They insist. They will have one. What to do then?!"

Certainly, the scientific lecturer who treats an exigent audience in this fashion will receive his payment in kind, but it is no crime if in "Academic circles" truth is valued before popular applause.

"Short time estimates," I may explain, are those based on the thickness of stratified deposits or the saltiness of the sea; "long-time estimates" on the phenomena of radio-activity, both involving a dangerous extrapolation. As the Reviewer's inference from my use of the term "short time" was based on a pardonable ignorance, it happens to be erroneous. But why take a leap in the dark?

My attitude towards dates is by no means one of pure negation. De Geer's method, based on laborious observation, has given us much precious information, and Antevs, one of the most distinguished of his former students, is at present working out the chronology of the late Pleistocene in Canada. When I last saw Dr. Antevs, he informed me that his results would be published at an early date, and gave 25,000 years as a probable estimate of the time which has elapsed since the ice of the last glaciation began to recede.

Further, the statement that the duration of the Pleistocene epoch may have extended over three or four hundred thousand years is not given incidentally, but is the key to a scale of time (Fig. 6, p. 40), on which the approximate duration of all the other great periods can be measured off with a foot rule.

From all this, it may be seen that talk about a "sinister influence" and "facing the strictures of Baron de Geer" is mere nonsense.

An illfounded complaint on the use of such terms as "Monastirian" and the rest is another consequence of unfamiliarity with geological matters. These names do not serve merely to distinguish river terraces: they are applied to geological formations and periods of time, and they were taken by Professor Depéret, in accordance with the custom of geologists, from the names of the localities where the formations are most fully developed and exposed to view—



"Cromer beds" is thus used by the Reviewer himself. As these localities do not occur in England, the names are foreign, and therefore "fantastic." I was not aware that the names employed by Penck had been a cause of confusion; I believe, on the contrary, that they were a powerful safeguard against it. The substitution of numbers for these names is liable to lead to much misunderstanding.

The reference to Professor Schwalbe is an "escape," from the second edition; though essentially true, I should have expressed it differently if I had borne in mind the loss which science has sustained by the death of this anatomist. At the same time, I do not myself regard Schwalbe as the first, or even the last, to establish *Homo neandertalensis* as a distinct species.

Of more importance are some remarks made on the Chancelade skull. Sir Arthur Keith is not the only anatomist who has examined this skull since it was so fully and admirably described by Testut; but, so far as I know, he is the only one who has expressed his disagreement with the conclusions of this distinguished observer without offering any detailed evidence in support of his assertion. If we refer to the latest expressions of opinion, we cannot, I think, do better than cite Professor Boule, who of all existing anatomists is, I imagine, the one best competent to speak on this question. In his work on "Fossil Men" (English Translation by Jessie and James Ritchie, 1923, p. 295), we read: "Dr. Testut 'has clearly shown the resemblance of the Chancelade skeleton to the skeletons of the Eastern Eskimo. . . . [There is] an array of facts in favour of the existence of an actual relationship, which is so admirably confirmed by the Chancelade skeleton.'"

The brilliant Giuffrida-Ruggeri, too early lost to science, who made a special study of the Magdalenian races, has arrived independently at similar conclusions, and he quotes with approval\* Mendes Corrêa, who writes: "conclude che bisogna attribuire a questo nuovo tipo di origine boreale anche quei crani che in seguito si trovano in Europa di tipo ipsisistenoide, a orbite alte, ortognato e leptorino. È un tipo che per l'aspetto cranio-facciale richiama quelle degli Eschimes . . ."

It is, no doubt, true that I was the first seriously to compare the Bushman and his civilisation with that of the Grimaldi race, and to infer that a close relationship exists between the two; but this view is now so widely accepted that it has ceased to be my exclusive property. It is based not solely, or even chiefly, on the Grimaldi skeletons, and I have myself pointed out some of the differences which distinguish skulls of this race from those of existing Bushmen. I also am familiar with the Bushman skull, and I doubt very much whether Sir Arthur Keith can show me a lower jaw of a Sardinian as comparable as is the Grimaldi jaw with a Bushman's.

It is, however, Verneau's classic monograph which, after passing successfully through the fires of controversy, is now regarded as holding possession of the field; but his conclusions are unhesitatingly upheld by Boule and Giuffrida-Ruggeri, from whom I will again quote, for these anatomists are independent investigators, who cannot be dismissed in an offhand manner as mere copyists.

Beginning with Giuffrida-Ruggeri, we find the following references to the Grimaldi remains: "Studiati accuratamente dal Verneau si potè accertare oltre agli anzidetti caratteri, anche un tipo negroide di bacino e una notevole lunghezza dell'avambraccio rispetto al braccio. . . ."

It may be of interest to add that Giuffrida-Ruggeri, after pointing out that the oldest Aurignacian industry occurs in Northern Africa, suggests that a change of climate may have driven out the negroid races, one towards the north, and the other—which he connects with the Bushmen—towards the south.

\* V. Giuffrida-Ruggeri: "L'Origine dell'Uomo." Bologna, 1921. P. 185.



Turning now to Professor Boule, he not only confirms M. Verneau's conclusions, but goes further,\* and states that he has "been greatly struck by the resemblances these Grimaldi Negroids bear to the group of the South African tribes, the Bushmen and the Hottentots."

The Reviewer is evidently unacquainted with the Aurignacian statuettes preserved in the Museum at St. Germain, and he cannot have seen the latest example discovered by M. and Mme. Saint-Périer at Lespugne, which unites a slender figure with a monstrous development of fat on the thighs and buttock.

I now come to what I regard as the only valuable criticism in this review, and have the pleasing task of thanking the Reviewer for calling my attention to two manifest errors. For the first—that on the supposed brachycephaly of all young children—I am only partly responsible. The sentence was based on a statement made by the distinguished investigator of La Quina—Dr. Henri Martin—who has made known to us so many Neandertalian remains from this station. In describing the skull of a Neandertal infant he writes:—"Il est donc sous-dolichocéphale, alors que les crânes d'enfants modernes ont une brachycéphalie habituelle, même exagérée."†

Possibly Dr. Martin did not intend this to apply generally, and was basing his result on observation of French children. It is true also that Miss Fleming‡ thought she had discovered a change in the value of the cephalic index with the growth of young children, but my friend, Mr. Dudley Buxton, calls my attention to a paper by Dr. Karl Pearson and L. H. C. Tippett§ in which they state: "We seem, therefore, justified when dealing anthropologically with the shape of the head, as determined by the two cephalic indexes, in neglecting any correction whatever for age."

I am alone responsible for the next blunder. The account of Clement Reid's observations given in my second edition is the correct one, that of the third rests upon the observations of Prestwich. How imperfect is our knowledge of the true succession at Hoxne will be seen by reference to Mr. A. S. Kennard's|| remarks on it, and I look forward with great interest to the results of Mr. Reid Moir's excavations. I cannot find anything in my remarks on Hoxne to indicate that I regard the section as of critical importance. The implements found there appear to be Upper Acheulean, and consequently my statement that the "chalky Boulder Clay" is Upper Tyrrhenian may still be maintained.

I think I have now dealt with all the material of the Review; on its manner I may not comment, for "le style c'est l'homme."

13th October, 1924,

University College, Oxford.

W. J. SOLLAS.

Africa, East: Archæology.

Reid Moir.

To the Editor of MAN.

#### The Stone-Age in Uganda.

SIR,—Mr. E. J. Wayland is in error in presuming that the illustrations accompanying his paper in Vol. IV, Part I, of *The Proceedings of the Prehistoric Society of East Anglia* were selected by me (see MAN, 1924, 124). I had nothing whatever to do with the publication of this communication, and I entirely fail to understand why its author should imagine otherwise.

Yours faithfully,  
J. REID MOIR.

\* "Fossil Men," p. 279.

† MAN, 1922, No. 46.

‡ "The skull of the Neandertal infant": *L'Anthropologie*, 1921, Vol. 31, p. 333.

§ *Biometrika*, 1924, p. 137.

|| A. S. Kennard: "The Pleistocene Succession in England." *Proc. Prehist. Soc. East Anglia*, 1915-1916. Vol. II, p. 260 *et seq.*





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# MAN

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Tuesday, Jan. 22.—(Anniversary Meeting) Presidential Address. 8.15 p.m. P. A. C. G. SELIGMAN, M.D., F.R.S.

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- Tuesday, Feb. 5.—(Ordinary Meeting) Rossel Island Money. (Lithics) W. E. ARMSTRONG.  
8.15 p.m.  
To be held at 50, Great Russell Street.
- Tuesday Feb. 19.—(Ordinary Meeting) Psycho-analysis and Anthropology.  
8.15 p.m. DR. ERNEST JONES.  
To be held at the Rooms of the Royal Society, Burlington House, Piccadilly, W.1.

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- Tuesday, March 18. — (Ordinary Meeting)  
8.15 p.m. A Comparison of Cranial Contours. (Lecture) Prof. F. G. PARSONS

To be held at 50, Great Russell Street, W.C.1.

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- April 2.—(Ordinary Meeting) The Use of Stone in the Naga Hills (Lecture)  
8.15 p.m. DR. J. H. HUTTON, C.I.E., I.C.S.
- April 15.—(Ordinary Meeting) An Analysis of Jewish Types (Lecture)  
8.15 p.m. R. N. SALAMAX, Esq.

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SIR DENISON BOSS, C.I.E., Ph.D.

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8.15 p.m. Mrs. SCOURBY ROUTLEDGE  
To be held at the Rooms of the Royal Society, Burlington House, Piccadilly, W.

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June 24.—(Ordinary Meeting) Rites de Passage in Ashanti. (Lecture) H. S. RATTRAY.

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- Nov. 25.—(*Huxley Memorial Lecture*) La race de Neanderthal et la race de Grimaldi: leur rôle dans l'humanité. Prof. Dr. RICH VERNER.

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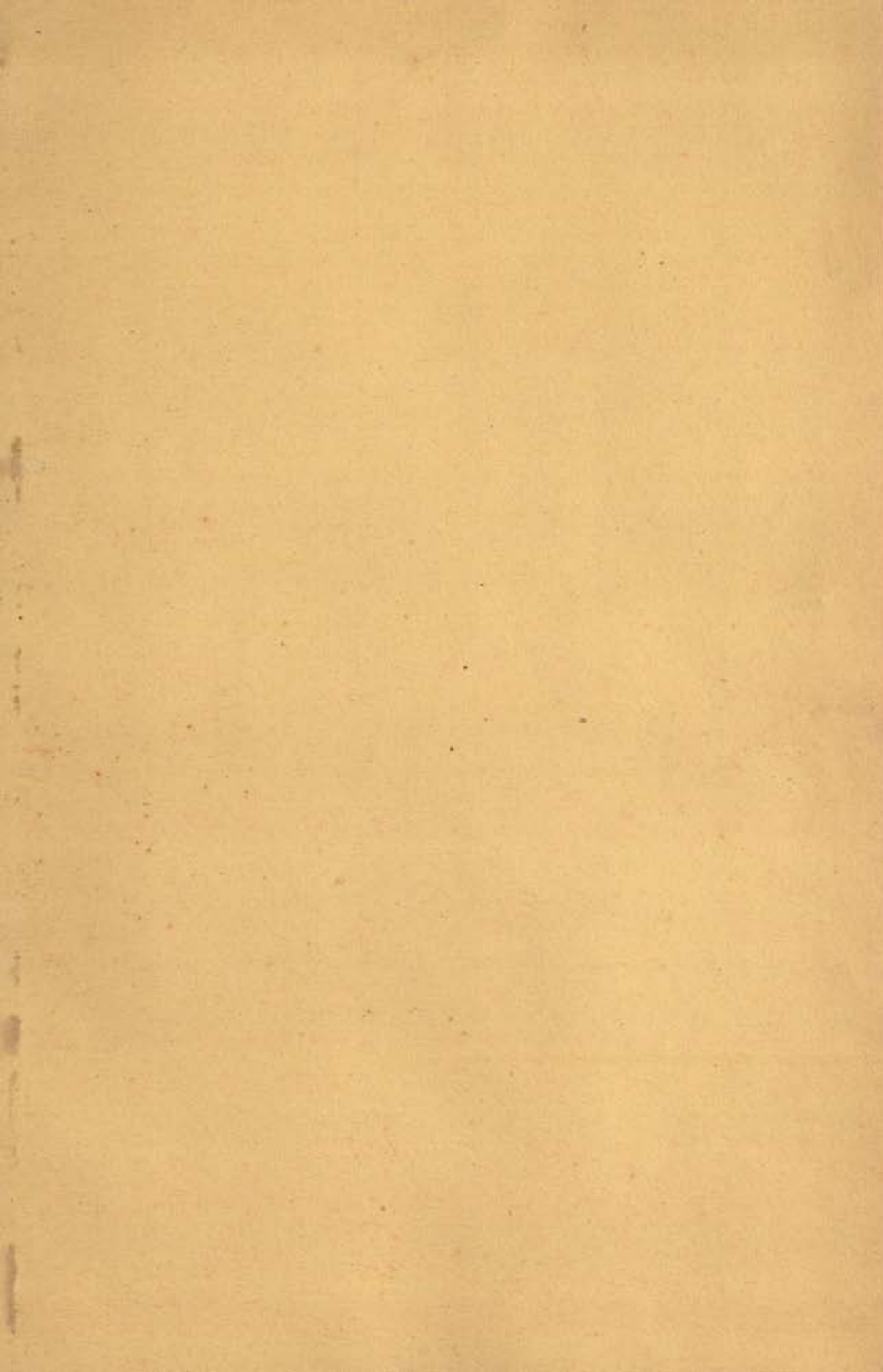
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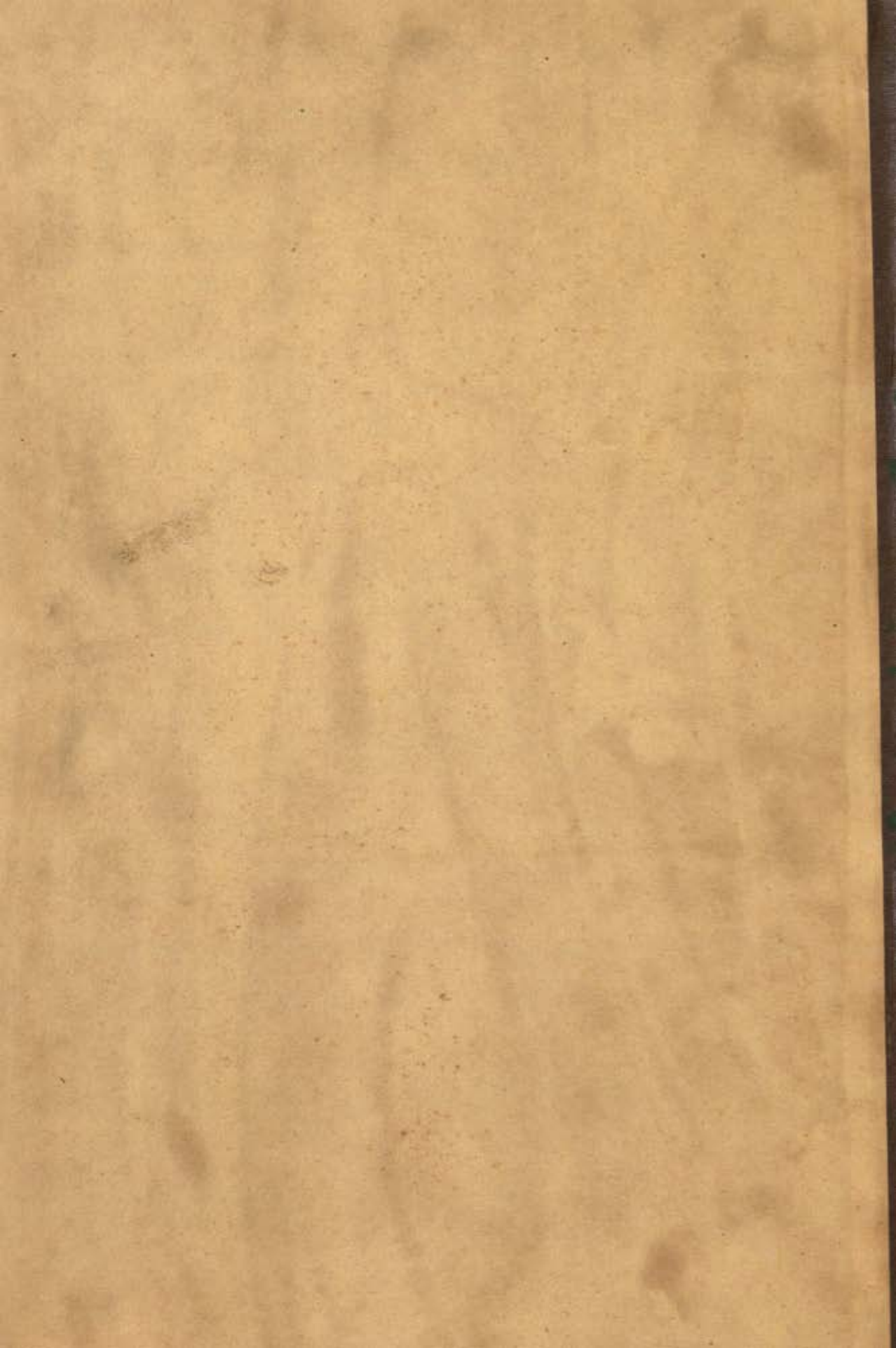
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