

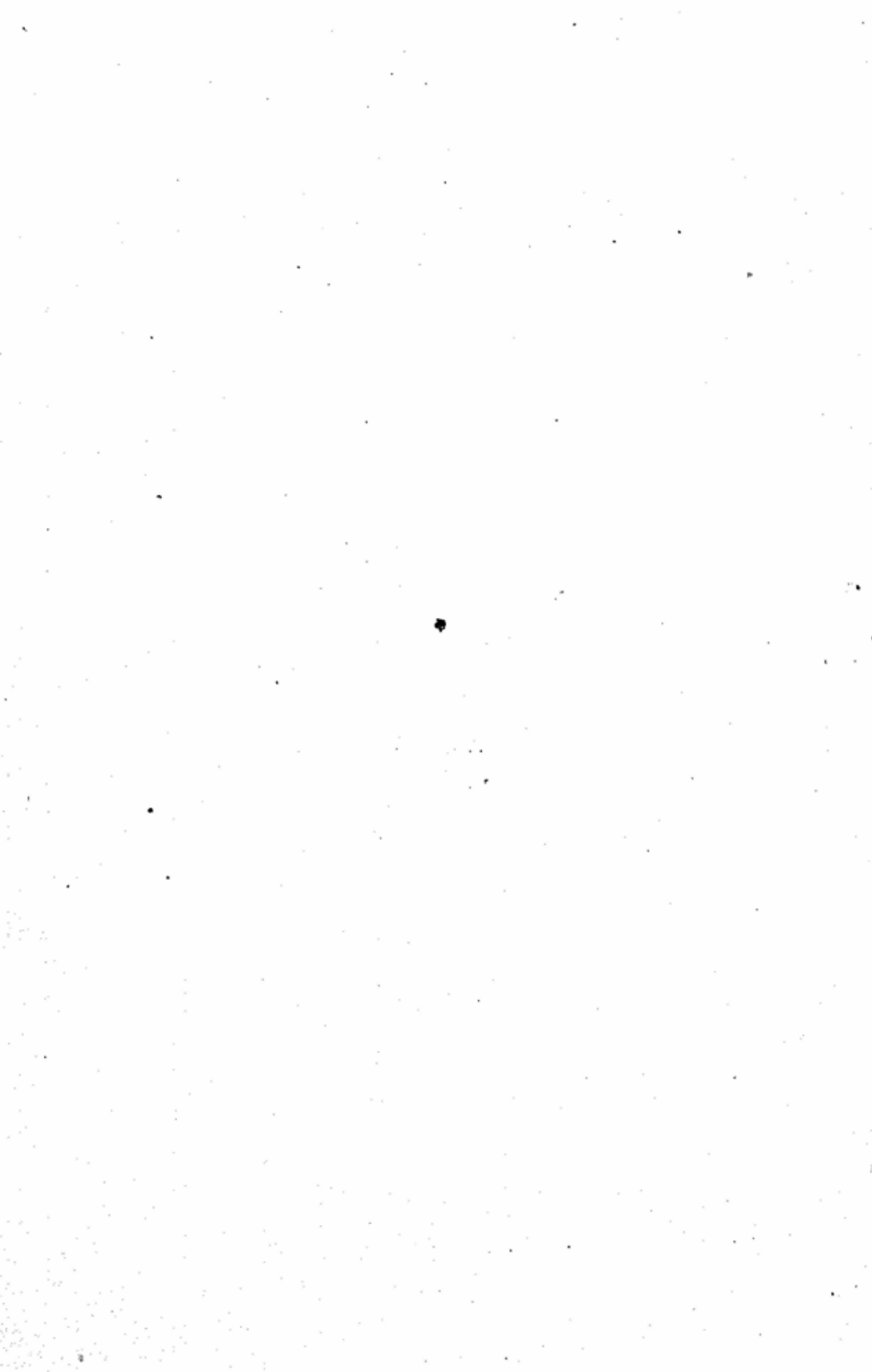
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 WRIGHT, W., 64.





RUDOLF VIRCHOW.

BORN OCTOBER 13, 1821: DIED SEPTEMBER 5, 1902.

MAN

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ORIGINAL ARTICLES.

Obituary: Virchow.

With Plate A.

Myres.

Rudolf Virchow: born 13th October 1821; died 5th September 1902.

By John L. Myres, M.A., F.S.A., Secretary of the Anthropological Institute.

Rudolf Virchow was born on the 13th October 1821, at Schifelbein near Stettin in Pomerania. His parents were of the middle class, and there appears to have been Jewish blood in the family. On leaving school he studied medicine in the Friedrich-Wilhelm Institut at Berlin, proceeding to his degree in 1843, and subsequently holding teaching appointments, first at the Charité Hospital; and then, in 1847, in the University of Berlin. From the first he devoted his attention chiefly to pathology and one of his earliest achievements was to establish, in co-operation with Reinhardt, that *Archiv für Pathologische Anatomie und Physiologie*, which has remained so closely associated with his name.

In 1848, however, a commission to investigate a severe outbreak of typhus in Silesia threw his thoughts for a while into other channels. The virulence of the epidemic was mainly due to the terribly insanitary conditions of life, and to the ignorance and indifference of the Government. Virchow's report spared no one, and in the turbulent months which followed he found himself—not wholly unwillingly—in the forefront of the democratic agitation. But in politics he was, as yet, before his age; and he was fortunate to find, in the chair of pathology at Würzburg, the asylum, and the opportunity for scientific work, which were out of the question at Berlin.

Eight years' research at Würzburg culminated in the publication of that theory of *Cellular Pathology* by which Virchow's name will be most widely remembered. Down

to his time, the widespread animistic belief that diseases were manifestations of some sort of "possession" by a power external to the patient, had dominated the theories, as well as the practice, even of the most advanced European medicine. But the elaboration of the microscope, and of new methods of investigation of the animal structures which could elucidate the symptoms of disease had opened new fields of research into the morphology and the physiology of cells. Schwann, Müller, Paget, and other workers were laying the foundations already for far-reaching inductions, by their observation of the life-history of animal tissues and of their constituent cells; and it was becoming clear that the current doctrines of disease did not correspond with the data of the new histology. It was left, however, for Virchow's deeper insight to establish finally, not merely that every cell originates directly from a previously existing cell, but that in pathological, no less than in normal physiological processes, the results which occur are simply the outcome of the interaction of originally normal cells with their circumstances. When these circumstances are favourable and normal, normal growth takes place, and health is maintained; but if the circumstances are unfavourable and abnormal, the growth which takes place is abnormal also; and what we call disease ensues.

Virchow's induction had not merely the profoundest results on the study and treatment of disease. First published, as it was, in 1856, and fully elaborated in a standard treatise only two years later, it could not but be regarded as standing in the closest relation with the Darwinian induction which immediately, though quite independently, followed it. If all living organisms consist of living cells, and living cells exhibit changes in their growth-processes in response to changes in their environment, then changes in the collective growth-process of the organism as a whole must be resolvable into changes in the growth-processes of its component cells; and thus individual variability—on which the whole Darwinian superstructure of specific and generic variability rests—would seem to be but a special and very complicate case of cell-variability, within that wide borderland which divides the domain of pathology from that of normal physiology. Consequently Virchow was able to take the line, from the first, that until the conditions of cell-variation were far more exactly determined than was the case in 1859, or, indeed, than is the case even now, speculations as to the origin and transformations of species must be regarded as hypothetical and provisional only. And it is mainly due to his persistent and emphatic repetition of this necessary warning, that the course of scientific opinion on these matters has remained so nearly within bounds as it has.

The theory of *Cellular Pathology* won immediate and universal recognition. Virchow was called without delay to the Chair of Pathology in Berlin, and began henceforward to gather round him that ever-growing circle of students and disciples, whose brilliant contributions to knowledge are a monument to the master mind, more enduring even than those which came so copiously from his pen. It was in these years, too, that his gift of organisation and administrative skill was most fruitfully employed in the creation of institutions like the Pathological Institute of the University of Berlin, the German Anthropological Society, the Berlin Society for Anthropology, Ethnology, and Pre-historic Studies, and the Berlin Museum für Völkerkunde; in the direction of his great survey of the physical characteristics of the German People; and in the organisation and management of the voluminous *Archiv für Anthropologie*, as well as of his own pathological journal already mentioned.

Of his political career, this is not the place to speak at length. From the moment of his first crusade against typhus and tyranny in Silesia, Virchow never ceased to cherish a lively enthusiasm for the temporal welfare of his countrymen and for the efficient administration of the resources of the Fatherland. During forty-two years' membership of the Municipal Council of Berlin he was constantly and successfully engaged in the reform of drainage, water supply, police supervision, and hospital management.

Elected to the Prussian Chamber in 1862, he was acknowledged, almost at once, as a leader of the Progressive party; and it is, perhaps, worthy of notice at this time of day that it was on a motion to create a navy that Virchow's defeat of the Government involved him in his duel with Bismarck. For twenty-five years he was Chairman of the Prussian Finance Committee, and he has left a profound mark on the fiscal system of his country. In the wars of 1866 and 1870-1 it was inevitable that it should fall to Virchow to organise a large part of the hospital service; and though he resigned the leadership of his party in 1878, he entered the Reichstag in 1880, and continued till 1893 to distinguish himself by his incisive and heart-searching criticisms whenever incapacity or mismanagement met his eye.

With his profound grasp of biological principles, his long association with the more specially human departments of anatomy and physiology, his strong national patriotism, and his intense practical interest in the great social problems, it is not surprising that Virchow found himself attracted on many sides towards anthropological studies. It was in the course of investigations into cretinism and the pathology of skull-development that he first seems to have been attracted to the study of normal human varieties; and this circumstance must always be borne in mind in estimating his attitude in anthropological matters. In the long controversy, for example, which raged over the Neanderthal skull, his wide pathological experience and his distrust of merely morphological considerations led him, perhaps, to propound a rather extreme view; and on this particular question his following has, on the whole, diminished as time goes on. But, though Schwalbe's recent challenge (cf. MAN, 1902. 129) seems likely for the moment to go unanswered, Virchow's central contention that, in such a case, judgment must necessarily be suspended until more copious evidence shall come to light, may very well still prove valid.

The same characteristic distinguished Virchow's utterances on another group of data also. It is commonly argued—and the view grows, if anything, more popular at present—that theriomorphic varieties in human anatomy may be used to determine the relations between man and other animal species, or between one race of mankind and another. But here, too, Virchow's pathological standpoint determined him to a very cautious conclusion. If such manifestations could be shown to be atavistic without question, he would have been the first to welcome the discovery: but his instinct, no less than his life-long training, led him to look rather at the absence of uniformity in the manifestations, and to put the previous question, whether they may not be due to some physiological, not to say pathological circumstance, of individual or geographical significance, and in any event of only secondary importance.

Most characteristic, finally, both of his width of intellectual range and of the unwearied thoroughness of his scientific procedure, is his devotion to the study of prehistoric archaeology in Germany and beyond. It might at first sight seem strange that an expert in pathological research, even if he were not at the same time a prominent social reformer, should find it necessary in middle life to master not merely the whole range of Northern antiquities, but to make frequent excursions into the pre-history of the Mediterranean and of Asia Minor, to take an active part in the excavations of Schliemann at Hissarlik, and to carry out extensive enquiries into the field-names of East German villages. But the reason is not far to seek. Few departments of human biology on the one hand lie so delicately on the borderland between physiology and pathology as the study of surface pigmentation, of the colours of hair, eye, and skin. Few surface indications, on the other hand, retain a more subtle connection than these with the deeper-seated functions of the system, with its adaptability to climatic change, and susceptibility to certain classes of disease, and with all the gradations of nervous energy and sensibility which go to make up what we know as racial or national temperaments.

It was not, therefore, merely as a biologist intent upon the study of racial and climatic variation, but as a statesman in search of the guiding data of German ethnology, that Virchow first created the German Anthropological Society, and then set it to register and tabulate, for example, the external physical characters of the school-children of the Fatherland. Nor was it merely as an antiquarian hobby that he organised the elaborate surveys of early cemeteries, and modern survivals of folklore and primitive social forms which have led to such fruitful conclusions in German ethnology. Nothing was clearer, from Virchow's point of view, than that mere morphological structure counted for little—and hereditary instincts (among civilised nations at least) not for much more—in determining the part played by the individual in the cycle of culture into which he is born; that problems of practical politics, no less than of ethnological science,—like those presented, for example, by the mixed Slav and Teuton population of eastern Germany—cannot be solved on the lines of mere zoological types; and that it is on cultural rather than on anatomical uniformities that the stability of nationalities—and in the long run of governments—must be based.

Outside the limits of Germany it was the same. The history of ancient Europe, from the close of the Stone Age at all events, has been the history of the accommodation alternately of indigenous racial elements to transmitted cultural changes, and of migrant racial elements to the conditions of culture which awaited them in their new homes; and the results, to Virchow's mind, belonged far less to the domain of anatomy than to that quasi-pathological field which in the life-history of the individual he had made so peculiarly his own; and which, he saw, must be examined by analogous methods in the life-history of the race.

Seldom, indeed, has the life-work of one man so set its stamp upon a nation's contribution to a new and amorphous form of knowledge. And mainly so, because, with all his keen appreciation, in politics as in hygiene and in medicine, of the practical value of scientific data and method, and with all his vast output of descriptive and methodological work, it was less what Virchow said or did, than what Virchow was, that made him the power that he became. Simple, modest, and unambitious; perfectly fearless in action, utterly candid in debate, and practising up to its extremest limits that freedom of speech which he had spent himself unsparingly to secure; wholly open-minded to new considerations as they arose, profoundly retentive, and rigidly accurate in observation and in reasoning, he could not fail to be a great and inspiring teacher, if only because he could so grandly and truly learn.

JOHN L. MYRES.

Sarawak.

Read.

Note on a Collection of Gold Objects found in Sarawak, in the Possession of His Highness the Rajah of Sarawak. By C. H. Read, **2** *F.S.A., Keeper of the Ethnographical Department, British Museum.*

The gold objects which are described below were all found together recently in the interior of Sarawak, and were exhibited, by permission of His Highness the Rajah of Sarawak, at a meeting of the Anthropological Institute on November 24, 1901. The collection (p. 6) consists of:—

- | | |
|---|---|
| (a-i.) Nine finger rings, four of them (a-d) set with stones. | (r.) One leaf-shaped embossed plate with loop behind. |
| (j-l.) Three penannular ear ornaments. | (s.) One bugle with wings forming a trapeze. |
| (m.) One neck chain. | (t-w.) Four small gold beads. |
| (n, o.) Two sets of penannular rings, for chains. | (x.) One portion of an irregular ingot. |
| (p, q.) Two gold pendants of indeterminate use. | (y.) One small piece of gold cut from an ingot (not figured on p. 6). |
| | (z.) One pendant, hollow, model of a penis. |

Rings, un-inscribed.—The largest ring (*a*) is set with an oval cabochon amethyst of pale colour, with irregular polished furrows. The bezel is an oval quatrefoil, the hoop thick and with pronounced shoulders. The second (*b*), smaller, is of the same type; the stone a cabochon amethyst, circular and of good colour; the hoop is ornamented with transverse twisted bands. The third of the gem-rings (*c*) has a hoop like the first, but is solid; the bezel is a pointed oval, on which is a raised setting containing a cabochon ruby, of good colour but badly flawed. The fourth ring (*d*) is plain and much resembles Greek rings from Crete, with oval bezel lapped over to hold the stone, a clear carved crystal; the hoop plain.


RING (*a*).

Rings, inscribed.—The first (*e*) is a solid heavy ring, with hoop like the first gem-ring (*a*); boat-shaped, pointed-oval bezel with an upper tablet engraved with a word (? *Arahtāra*) in a Javanese modification of Sanskrit. The second (*f*) is more Saracenic in type, solid, with a broad vertical furrow on each side of the bezel, below which, on each side, are two oval wing-like projections. The bezel is engraved with an angular figure, perhaps *Allah* in Kufic. The outside of the hoop is engraved with scrolls and punched circles.

RING (*f*).RING (*h*).

Ring with Buddhist subject (?).—This is a heavy ring (*g*) with oval bezel, with a lotus border, engraved with a design resembling a conch shell and scrolls. The next (*h*) is a ring with pronounced shoulders; oval bezel deeply engraved with a fish. Finally, (*i*) is a broken ring; light make, stone wanting.

Ear Ornaments.—The first (*j*) consists of three stout penannular rings of graduated sizes, placed one upon another. The second (*k*) is similar, but damaged. The third (*l*) is a bead-like object with an opening cut on one side; the surface is covered with circular projections and the circular opening at top and bottom is edged with twisted wire. These apparently were worn clipped on the upper edge of the ear.

Neck Chain.—This chain (*m*) is formed of loops  linked together in a manner common from classical times to our own day. The oval loop is first constricted in the middle and the two ends are then bent together towards each other. A chain of Roman period of precisely this make, from Egypt, is in the Franks Bequest in the British Museum. The two ends are furnished with hooks fixed to square moulded bases.

ONE END OF CHAIN (*m*).

Penannular Rings.—These two sets of penannular rings (*n, o*) are of the same make. Each ring consists of a piece of wire about the thickness of an ordinary pin, and around it is whipped two thin wires which have been previously twisted together.

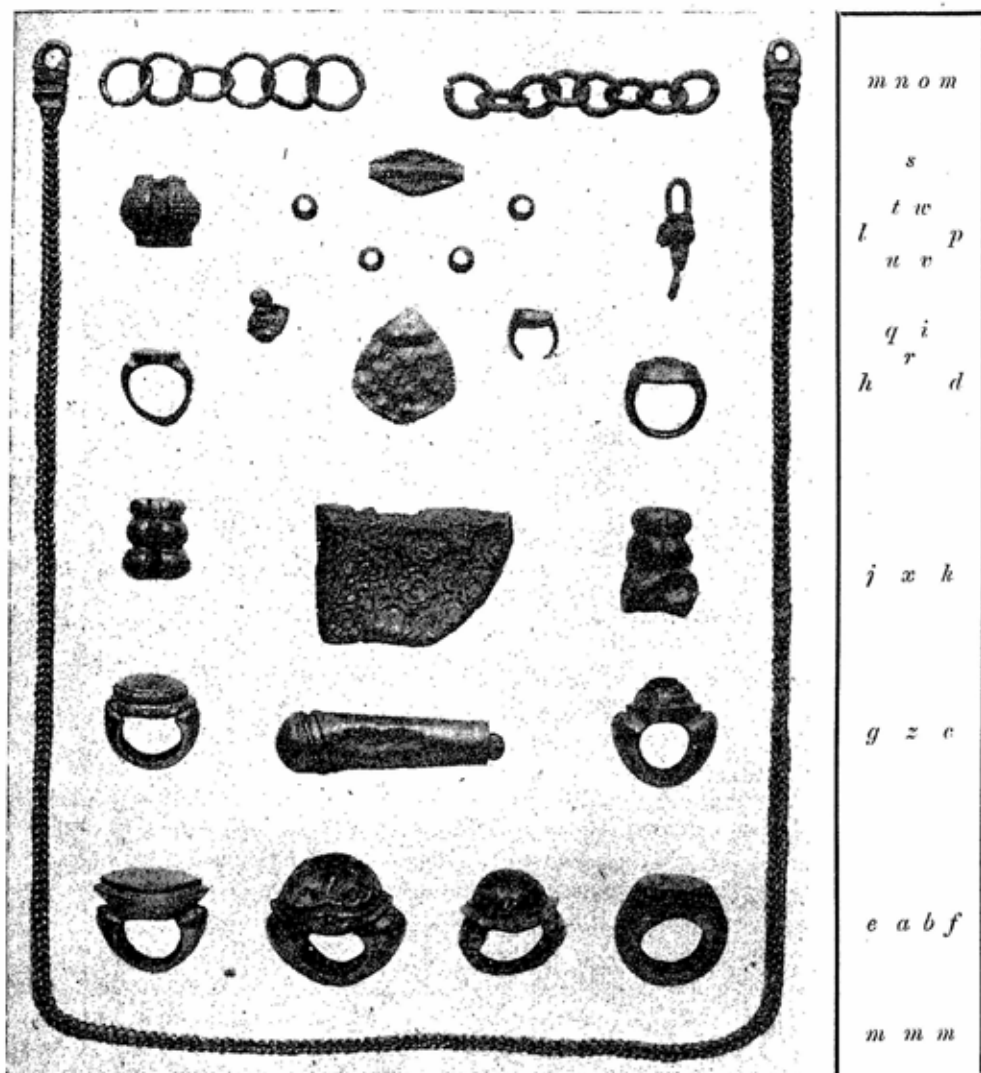
Pendants, Beads, &c.—The first pendant (*p*) consists of a long loop with a moulding below, on one side of which is an empty setting; the base seems formed of a natural nugget. The second (*q*) is like a miniature finger ring, set with a rough ruby and with a penannular hoop; from one side of the bezel projects an empty claw setting.

ORNAMENT (*r*).

The ornament (*r*) is a leaf-shaped thin plate, embossed with two crescents of dots back to back, each terminating in a boss; a boss in addition at top and bottom; a penannular loop at the back.

BUGLE (*s*).

The bugle (*s*) consists of a tube expanding at the two opposite sides in the form of a flattened triangle, the edge embossed with dots.



GOLD OBJECTS FROM SARAWAK.

KEY.

The four beads (*t-w*) are each in the form of two truncated cones placed base to base. They are hollow.

The object (*x*) is a portion of an ingot, with two edges cut. Weight 5 oz. 410 grs. It has apparently been cast in a rounded receptacle, the bottom being rough and partly hammered. The upper face is covered with overlapping impressions of a punch, the design of which is not very clear, but it may be a conventional lotus leaf. The shaded part in the drawing appended is in relief. Another small piece of plain solid gold (*y*) is not figured in the photograph.



Finally, the object (*z*) is a pendant consisting of a hollow tube representing in a more or less naturalistic manner a human penis. It has two loops for suspension and forms a rattle, there being a pellet inside.

I have no doubt the rings are of Javanese work. The neck-chain and the pendant (*p*) are also probably of the same make.

C. H. READ.

Biometry.

Lee : Lewenz : Pearson.

On the Correlation of the Mental and Physical Characters in Man. By Alice Lee, D. Sc., Marie A. Lewenz, B.A., and Karl Pearson, F.R.S. **3**
A Paper read (as "Part II.," see below) before the Royal Society, November 20, 1902, and to be published eventually in its Proceedings.

In a first paper on this subject* we gave a brief account of our material—Miss Beeton's copies of the Cambridge anthropometric measurements with degrees added at the University Registry, and the school measurements carried out by assistance from the Government Grant Committee. This material will take years to exhaust, but the present notice gives further conclusions to be drawn from Dr. Lee's and Miss Lewenz's later reductions from this great mass of raw statistics.

In the first place we may refer to certain matters which arise directly from the first paper. In the discussion which followed the reading of that paper it was suggested that we ought not to correlate intelligence with absolute measurements on the head, but with their ratio to the size of the body. The answer made on that occasion was based on data not then published, namely, that there is no sensible correlation between intelligence and the absolute size of the body. Hence the correlation between intelligence and any ratio of body lengths must also be small. To show this algebraically let x_1 and x_2 be any two measurements, and $R_{x_1x_2}$ the ratio x_1/x_2 ; let $r_{y_1y_2}$ denote the coefficient of correlation of any two characters y_1, y_2 ; let v_x be the coefficient of variation of the quantity x , i.e., be 100 times its standard deviation divided by its mean.† Then we have the following formulæ,‡ where i denotes intelligence and x_1, x_2 any other characters:—

$$v_{R_{x_1x_2}}^2 = v_{x_1}^2 + v_{x_2}^2 - 2v_{x_1}v_{x_2}r_{x_1x_2} \quad (i)$$

$$r_{iR_{x_1x_2}} = \frac{v_{x_1}r_{ix_1} - v_{x_2}r_{ix_2}}{v_{R_{x_1x_2}}} \quad (ii)$$

Clearly when r_{ix_1} and r_{ix_2} are both small $r_{iR_{x_1x_2}}$ cannot be large. Let L be length of head, B be breadth of head, and S be stature. Then in the case of the Cambridge graduates—

$$\begin{aligned} v_L &= 3.1839, & r_{LS} &= 0.2816, & r_{iL} &= 0.0861, \\ v_B &= 3.2836, & r_{BS} &= 0.1529, & r_{iB} &= 0.0450, \\ v_S &= 3.6958, & r_{LB} &= 0.3448, & r_{iS} &= -0.0056. \end{aligned}$$

The v 's and the physical correlations are due to Dr. W. R. Macdonnell,§ r_{iL}, r_{iB} were given in our first paper,|| and r_{iS} was deduced from the following fourfold table [A.] :—

If r_{iS} were really sensible, it would mean that honours men were slightly shorter than pass men. The only safe conclusion we can draw, however, is that stature is not sensibly correlated with place in degree examinations.

From the above results we find—

$$v_{R_{LS}} = 4.1435, \quad v_{R_{BS}} = 4.5530.$$

Hence we have—

$$r_{iR_{LS}} = 0.0712, \quad r_{iR_{BS}} = 0.0370.$$

That is to say, the correlations of intelligence with the ratios of length and breadth of head to stature are slightly smaller than the correlations of intelligence with the absolute head-measurements. The result predicted from the smallness of r_{iS} , in the discussion on the paper at the Royal Society, here receives its exact numerical confirmation.

(A.) INTELLIGENCE.

Stature.	Honours.	Pass.	Totals.
Over 69" -	244	228.5	472.5
Under 69" -	280	258.5	538.5
Totals -	524	487	1011

* "On the Correlation of Intellectual Ability with the Size and Shape of the Head" (*Proc. Roy. Soc.*, vol. 69 (1902), pp. 333-342).

† *Phil. Trans.*, A, vol. 187, p. 276.

‡ *Ibid.*, p. 279, Formula. (ii) is deducible by simple algebra in the method often indicated in this series of papers.

§ *Biometrika*, vol. 1, pp. 188-9.

|| *Proc. Roy. Soc.*, vol. 69, pp. 335-6.

Since our school measurements were started, MM. Vaschide and Pelletier have published in the *Comptes Rendus** a statement, that although unable to find any relation between intelligence and length or breadth of head, they consider a relationship to hold between intelligence and the auricular height of the head. Their process was of the following kind. They asked the school teacher to select ten intelligent and ten non-intelligent children, and then measured the heads of these two sets, and found their means. This was done for groups of three ages in boys and two ages in girls. The probable errors of the difference of the means of ten observations were not considered, and by exactly the same process that they reason that the auricular height is greater for the more intelligent children they might have deduced from their statistics that intelligent girls of eleven years have lower heads than intelligent girls of nine years, and non-intelligent boys of eleven years lower heads than the same class of nine years. Frankly, we consider that the memoir is a good illustration of how little can be safely argued from meagre data and a defective statistical theory.

Taking from our school data the auricular height of 2,005 boys, and from the growth table based on the same material, reducing them to the age twelve as standard, we find [B.]—

Whence the correlation = 0.0161.

There is thus less correlation between auricular height and intelligence than between either breadth or length and intelligence; indeed, it is less than the probable error, and no weight whatever can be laid on it. The discovery of MM. Vaschide and Pelletier that the auricular height of school children is related to their intelligence seems to us quite incorrect for English boys, and unproven owing to defect of material and method even for French children.

It has been suggested by a sweeping critic who clings to the *high* correlation of intelligence and head size that our school head measurements are of no value. To this we can only reply that in all cases where the measurements have been in the least doubtful, the spanner has been returned and the measurements re-made. Further, if the absence of correlation between intelligence and head measurements be a proof that the head measurements have been taken badly or the scale of intelligence wrongly applied, how does it happen that high correlation comes out for the head measurements of brothers, for all three cases, breadth, length, and height, and that its value is quite in keeping with the correlation between the intelligence of brothers? The existence of careless measurement or appreciation would have reduced these correlations also to near zero, as well as those on the characters on the *same* individual. We are forced to conclude that while our data give surprisingly consistent and uniform results for collateral heredity when we deal with upwards of twenty characters,† about half mental, and half physical, they give with an equal weight the definite result that there is no *marked* correlation between intelligence and the size or shape of head in children.

While it seems desirable later to investigate specially the Cambridge data from the standpoint of the subject studied, as well as degree taken, we complete at present the list of other physical correlations with intelligence on the simple basis of honour and pass degree groups.

(B.) AURICULAR HEIGHT OF HEAD
AND INTELLIGENCE.

Height.	Intelli- gent.	Slow.	Totals.
Above 127 mm. -	481.5	584.0	1065.5
Below 127 mm. -	415.0	524.5	939.5
Totals -	896.5	1108.5	2005

* *Comptes Rendus*, Paris, vol. 133, 1901, pp. 551-3.

† Results for seven mental and three physical characters were given in *Proc. Roy. Soc.*, vol. 69, p. 155. These numbers have been more than doubled since that paper was published.

The following are the tables:—

INTELLIGENCE AND STRENGTH OF PULL.

(C.) *First Grouping.*

Pull.	Honours.	Pass.	Totals.
Above 84 lbs.	251	256.5	507.5
Below 84 lbs.	273	229.5	502.5
Totals	524	486	1010

(D.) *Second Grouping.*

Pull.	Honours. 1st Class.	Honours, 2nd, 3rd Classes, and Pass.	Totals.
Above 84 lbs.	75	432.5	507.5
Below 84 lbs.	78	424.5	502.5
Totals	153	857	1010

Intelligence and strength correlation is from the first grouping — 0.0765, and from the second — 0.0199. Thus it would appear that from either grouping the honours men have slightly less strength of pull than the pass men, but as even this small amount is decreased when we group the first class men only together, such inferiority as there is seems to lie in the second and third class honours men. Taking the average, we may say that there is a negative correlation of — 0.0482 between intelligence and strength of pull. The probable error of the result, about 0.035, shows that very little weight can be attached to it.

E.—The correlation between intelligence and strength in this case = — 0.0242.

This result, although it is less than its probable error, is again negative.

F.—This is judged in the Cambridge Anthropometric Laboratory by the distance at which the test type can be read.

Forty-one men on our cards were unclassified—10 in 1st class, 5 in second, 1 in third, and 25 poll-men. This was possibly due to defective sight, or even to the loss of the right eye, because the strength of the left eye was sometimes given; we have not ventured to group these unclassified cases, however, with the short-sighted division.

The correlation between intelligence and long sight = — 0.0049. This is far less than the probable error of the result, but is again negative.

G.—The correlation between intelligence and weight = 0.0459, and is thus very slightly larger than its probable error.

Now, it has sometimes been argued that in any investigation of this kind, it is desirable to take not absolute weight, but its ratio to stature or some power of stature. Let W = weight, S = stature, and n = any power; let $R_n = W/S^n$, and v be a coefficient of variation, and r one of correlation, i standing for intelligence.

(E.) INTELLIGENCE AND STRENGTH OF SQUEEZE.

Squeeze.	Honours.	Pass.	Totals.
Above 85 lbs.	236.5	227.5	464
Below 85 lbs.	282.5	255.5	538
Totals	519	483	1002

(F.) INTELLIGENCE AND SIGHT.

Sight—Right Eye.	Honours.	Pass.	Totals.
Over 61" -	259.5	239	498.5
Under 61" -	249.5	223	472.5
Totals	509	462	971

(G.) INTELLIGENCE AND WEIGHT.

Weight.	Honours.	Pass.	Totals.
Over 10 st. 13 lbs. -	258.5	226	484.5
Under 10 st. 13 lbs.	265.5	261	526.5
Totals	524	487	1011

Then

$$v_{Ra}^2 = v_W^2 + n^2 v_S^2 - 2n v_W v_S r_{SW} \quad (i),$$

$$r_{iRa} = \frac{v_W r_{iW} - n v_S r_{iS}}{v_{Ra}} \quad (ii).$$

But, from results already given for the Cambridge data—

$$\begin{aligned} v_S &= 3.6958 & r_{SW} &= 0.4860 \\ v_W &= 10.8300 & r_{iW} &= 0.0459 \\ & & r_{iS} &= -0.0058 \end{aligned}$$

Hence, calculating v_{Ra} from (i) for $n = 1, 2$, and 3 , we deduce—

$$r_{iRa} = \text{correlation of intelligence with ratio weight to stature} = 0.0540$$

$$r_{iRa} = \text{correlation of intelligence with ratio weight to stature} = 0.0555 \quad (\text{stature})^2$$

$$r_{iRa} = \text{correlation of intelligence with ratio weight to stature} = 0.0503 \quad (\text{stature})^3$$

There is no substantial difference between any of these correlations and that for intelligence and absolute weight. As they were found indirectly by formulæ, it seemed desirable to test at least one of them directly. Accordingly Miss M. Beeton found the ratios of weight per inch of stature for 1,012 Cambridge men. The resulting table was as follows:—

H.—The distribution is sensibly the same as that of the table for absolute weights, and the correlation comes out 0.0604, *i.e.*, it differs only by 0.0064, or about one-fifth of the probable error, from the value of the correlation obtained indirectly.

We may then, we think, conclude that whether we take absolute weights or the ratio of weight to stature, honours men are slightly heavier than poll-men. Summing up the whole of our examination thus far of the Cambridge measurements we may say that:—

(H.) INTELLIGENCE AND WEIGHT
PER INCH OF STATURE.

—	Honours.	Pass.	Totals.
Over 2.224 lbs. per inch.	258.5	222	480.5
Under 2.224 lbs. per inch.	265.5	266	531.5
Totals - -	524	488	1012

The honours men, and presumably, therefore, the more intelligent class, are slightly heavier and have slightly longer and broader heads; they are not quite as tall nor as strong, whether strength be measured by pull or squeeze, and are slightly shorter-sighted than the poll-men, or presumably the less intelligent class. In no single case, however, is the correlation between intelligence and the physical characters sufficiently large to enable us to group the honours men as a differentiated physical class, or to predict with even a moderate degree of probability intellectual capacity from the physical characters of the individual

While the above and the previously published results exhaust the Cambridge data, as long as we preserve the division into honours and poll-men, much more remains to be done on this material when we consider subject groupings among the Cambridge graduates, or when we turn to the much wider range of both physical and mental characters recorded in our school measurements.

A preliminary inquiry may, however, be recorded here as bearing upon a rather vexed question at the present day, namely, the relation of athletics to health and intelligence. In our school measurements we had three categories: (a) Health—divided into the classes: Very Strong,* Strong, Normally Healthy, Rather Delicate, Very Delicate. (b) Ability or Intelligence—divided into six classes: Quick Intelligent, Intelligent, Slow Intelligent, Slow, Slow Dull, Very Dull.

* Strong in these categories equals robust.

Lastly, (c) we had the alternative category—Athletic, Non-athletic. By Athletic we understand not only fondness for out-door exercises and games, but good performance in them. There was a control entry in the schedules under the heading Games or Pastimes, in which not only what the children *liked*, but in addition what they were *good at*, had to be entered. We were thus in a position to make that triple correlation between health, ability, and athletic power, which seems really needful, if a sane judgment is to be made on the part athletics should play in the school curriculum.

The following tables give the relations between health and ability, ability and athletic power, and health and athletic power [I.] :—

(I.) HEALTH AND INTELLIGENCE.—2,253 BOYS.

Health.	Quick Intelligent, Intelligent.	Slow Intelligent, Slow, Slow Dull, Very Dull.	Totals.
Very strong, strong - - -	415	453	868
Normally healthy - - -	461	542	1,003
Rather delicate, very delicate - -	128·5	253·5	382
Totals - - -	1004·5	1248·5	2253

The correlation dividing at the Strong is 0·0820.

The mean of the other divisions (i) dividing at the Delicate, and (ii) putting the Slow Intelligent with the Intelligent, gave 0·0835. We conclude, therefore, that there is a sensible, but not marked correlation between good health and intelligence.

Taking, however, health and athletics we have the table [J.] :—

(J.) HEALTH AND ATHLETICS.—1,743 BOYS.

—	Very Strong.	Strong.	Normally Healthy.	Rather Delicate.	Very Delicate.	Totals.
Athletic - - -	91	447·5	497·5	120	3	1,159
Non-athletic - - -	9·5	98·5	293·5	166·5	16	584
Totals - - -	100·5	546	791	286·5	19	1,743

The correlation between healthy and athletic, dividing between Strong and Normally Healthy, is = 0·4570, a very marked relationship.

Next, taking intelligence and athletics, we find [K.] :—

(K.) INTELLIGENCE AND ATHLETICS.—1,708 BOYS.

—	Quick Intelligent.	Intelligent.	Slow Intelligent.	Slow.	Slow Dull.	Very Dull.	Totals.
Athletic - - -	159·5	421·75	355·5	158·75	40·5	12	1,148
Non-athletic - - -	46	163·25	187·5	99·75	48·5	15	560
Totals - - -	205·5	585	543	258·5	89	27	1,708

Dividing between Intelligent and Slow Intelligent we find the correlation between intelligence and athletic character is 0·2133.

This result may be exhibited also in the percentages of athletic and non-athletic boys who fall under each class of intelligence [L.] :—

(L.) PERCENTAGES OF ATHLETIC AND NON-ATHLETIC BOYS UNDER EACH GRADE OF INTELLIGENCE.

—	Quick Intelligent.	Intelligent.	Slow Intelligent.	Slow.	Slow Dull.	Very Dull.
Athletic - - -	14	37	31	13	4	1
Non-athletic - - -	8	29	32	18	9	3

The relationship between keenness for combined with capacity in games and general intelligence is here manifest.

Certain other correlations with the athletic character may be just noticed without giving the tables. The athletic boy is popular (0·3250) and noisy (0·3452), and this although popularity is not found to be directly correlated with noise. He is slightly self-conscious (0·0761), and is more likely to be fair than dark (0·C391). His temper tends to be quick rather than sullen (0·2207), as the following table, based on 1,664 cases, will show [M.] :—

(M.) PERCENTAGES OF ATHLETIC TO NON-ATHLETIC BOYS FOR EACH TEMPER.

—	Quick-Tempered.	Good-Natured.	Sullen.
Athletic - - -	21	68	11
Non-athletic - - -	12	74	14

To sum up, then : While the intelligent are only *slightly* the more healthy, the athletic are *notably* the more healthy element in the community. Further, the athletic are considerably more intelligent than the non-athletic ; they are the more popular and more noisy element ; and they tend to quick rather than sullen temper. We may in general terms describe the athletic boy as healthy, quick-tempered, and intelligent when compared with the non-athletic boy. He certainly under all three headings should make a better soldier than the non-athletic, and it is hard to discover any statistical evidence in *school* life for such expressions as “the flannelled fool at the wicket,” or “the muddy oaf at the goal.” What happens in later life can only be determined when ample statistics are available for reduction and comparison. Failing such data, we can argue only from the vaguest of impressions.

Anthropometry.

Note on a Method of Radial Craniometry. By Charles S. Myers, M.D. Myers. 4

The use of radial measurements for the face and skull has hitherto not met with much favour. The gnathic index, for instance, of Flower, which was based on the lengths of the radii between the basion and nasion, and between the basion and alveolar point, could not be expected to afford a true indication of the degree of prognathism, so long as the length of the nasio-alveolar line was left out of consideration. However, for some years instruments have been on the market which enable various radial measurements to be taken from the ear-hole, and I thought it worth while to include in my anthropometric outfit for Egypt a pattern recently made for me through the ingenuity of Mr. John Gray. The apparatus essentially consisted of a metal semi-circularly bent

bar, each end of which was provided with a round knob, adjustable by means of springs, so as to fit in the ear-holes. At the centre of the bar was attached a movable graduated rod that could, by means of a rack and pinion, be brought into contact with the point, between which and the ear-hole the distance was to be measured. When once adjusted to the ears, the instrument could be rotated in the vertical plane to allow of the taking of successive radial measurements between the ear-hole (as centre) and the chin, alveolar point, nasion, point of maximum frontal projection, vertex, and point of maximum occipital projection.

It is clear that by themselves these radial lines are useless for plotting out on paper the relative positions of the points to which the instrument is applied. So I fixed to one arm of the semi-circle a graduated brass disc carrying a weighted freely-moving index. By this means the inclination of the semi-circle to the vertical could be measured, and hence the direction, as well as the length, of the various auricular radii was ascertained. It is now possible to draw a diagram giving the real position of the above points relatively to each other and to the ear-hole. The neighbouring points may be joined to one another, as in the figures here given, which are hypothetically taken from a highly orthognathous and a highly prognathous subject.

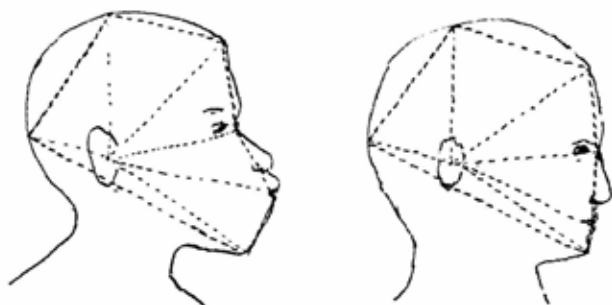


DIAGRAM OF RADIAL CRANIOMETRY.

It seems worth while to undertake the preparation of a series of such polyhedral figures from skull measurements; possibly results of ethnological interest will be obtained. The chief difficulty in determination of the inclination of the radii in the living subject is in keeping the head still. The chief objection to employing the ear-hole as centre lies in our ignorance of the individual variations in its position, which may make it valueless as a *point d'appui* for anthropological measurement. The matter deserves further investigation.

CHARLES S. MYERS.

REVIEWS.

America, Central.

Seler.

Die alten Ansiedelungen von Chaculá. By Eduard Seler. 4to. Pp. 223; with a map, 50 full-page heliotypes and 282 illustrations and plans in the text.

5

A treatise on Central American archaeology from the pen of Dr. Seler, Professor at the University of Berlin, would be welcome even were it less externally attractive than the handsome volume which is before us. This records the scientific results of a journey undertaken about seven years ago through various parts of Chiapas and Western Guatemala, the expenses of which were defrayed by the liberality of the Duc de Loubat. Though the author informs us that his original scheme was somewhat curtailed in consequence of an illness, yet he has succeeded in collecting a very considerable quantity of new material, to which an especial value is added by his minute descriptions and comparative analysis. As its title indicates, the monograph is devoted to the description of the ancient remains in the neighbourhood of the hacienda of Chaculá ("Red Water"), which is situated on the borders of Guatemala, midway between the Rio Chiapas and the Rio Lacantun. Here were discovered numerous traces of such settlements as abound in the districts inhabited by the peoples of the Maya-Quiché stock. The survey of these

ruins and the description of their features constitute the core of the work, which is completed by an account of the many small antiquities found in the course of the restricted but very successful excavations which were carried out. Incidentally the author enters upon various discussions and broaches several theories, which are always highly ingenious and are often very plausible.

The settlements, of which the most important were situated in the valley of Uaxac Cauil ("Nine Stars") and on the plateau of Quen Santo ("Holy Stone"), consisted of groups of stone buildings varying a certain amount in details and in orientation, but fairly constant in their general arrangement. The pyramids, generally three in number, which normally occupy one side of the central block are considered to be temples; they rise in two or in three terraces, on the last of which is, in the more perfect examples, a cella formed by vertical walls 1.50 m. high no doubt originally roofed with palm leaves as the pictures in the codices show. The largest pyramid noted, viz., that of Yalam bohoch, was 8 m. high, and 12 m. square at the ground level; the angles of inclination vary in different cases from about 63° to about 74°. Facing the central temple and at some yards distance from it is a stone pillar identified as the place on which the priest stood to offer copal incense, as figured in a plate of the original manuscript of Sahagun discovered by the author in the Biblioteca del Palacio at Madrid. At a short distance in front of the temples is the place for the ball-game so familiar in the Mexican pictures; it is well identified by the correspondence of its dimensions with those given by Sahagun. The author considers that the "Tennis-Court" of Chichen-Itza (*Biologia Centrali-Americana*, Part XIII.) was a TEO-tlachtli, designed for the gods as it is too large to have been used by men. These points are worked out in great detail, and are illustrated by careful plans and drawings and by reproductions from the picture-codices.

Of the numerous sculptured stones described, three demand a notice on account of the theory which is founded upon them. The author considers them to be altar slabs, which, from the relative positions they occupied in the city and from the representations carved upon them, should correspond to the altars of the three Palenque temples excavated and described by Mr. Maudslay (*Biol. Centr. Am.*, Parts IX., X.). Consequently the "Temple of the Foliated Cross" would be dedicated to the east and to the Water God, the "Temple of the Cross" would be dedicated to the North and the Sun God, while the so-called "Sun Temple" would be dedicated to the West and the god Oxlahun tox. This last name is very cleverly obtained by noting that on the Palenque altar the top hieroglyph is Oxlahun Cimi ("Thirteen, Death") according to the Mayan dialect, or "Oxlahun tox" according to the Tzeltal, while Nuñez de la Vega, in a very curious passage, makes actual mention of a "demon" called Coslahun tox. The further attribution to this god of the title Uuc ical ahau ("lord of the seven black men") is not quite so convincing. These discussions on the identification of the several deities are typical of the author's method and deserve careful study. Be it noted, however, in passing that it seems somewhat precipitate to conclude that all heads which are characterised by a snake-like band passing under the eyes and looped over the nose, represent a single deity; for the snake is an omnipresent figure in Mayan sculpture; and again, in the better known Aztec mythology several quite distinct deities had the snake as their attribute.

Of stelæ with chronological hieroglyphs, the author discusses two in his opening chapter and dates them according to the system of interpretation explained in several of his articles in the *Zeitschrift für Ethnologie* (Vols. XIX.-XXXIII.), which should be compared throughout with his present work. The remark that all the extant monuments coincide with one another in respect of date to within a few centuries is striking, but it must be remembered that Dr. Seler assigns a shorter period to the Great Cycle than does Mr. Goodman in his remarkable treatise (*Biol. Centr. Am.*, 1897).

Besides the temples and other buildings several grottoes were explored, one of which contained a sanctuary which had been furnished with a complete equipment of

stone statues, pottery, &c. From these, from deposits in the temple-mounds, and from a few graves, was obtained a rich hoard of small antiquities, of which the most remarkable are pottery masks, magnificent urns with heads modelled in pottery, and censers. We gather that many of these specimens have enriched the Museum für Völkerkunde at Berlin. From the graves were also obtained some sixteen skulls, very valuable from their rarity, which are figured and described by Dr. F. von Luschan. They are remarkable for their artificial deformation by compression, which is so great as to give ten of them a cephalic index of over 100. Finally, a chapter is devoted to some short vocabularies of the local dialects.

This work is a really important contribution to the scanty literature of the subjects with which it deals. In respect of publication it is admirably presented, though it would have lost nothing in value by the omission from the series of fifty full-page heliotypes of a certain number which fall considerably below the high standard of the drawings and process blocks accompanying the text. D. RANDALL-MACIVER.

Borneo.

Furness.

The Home-Life of Borneo Head-Hunters; its Festivals and Folklore. By W. H. Furness, 3rd M.D. Philadelphia: Lippincott Company, 1902. Pp. xii + 197. 6
25 x 17. Price 30s.

For the first time full justice has been done to the domestic life of the interior tribes of Sarawak, and it may come as a surprise to many, that heathen folk who are passionately addicted to head-hunting, can at the same time be well-mannered, kind-hearted gentlemen. Dr. W. H. Furness abundantly proves this in his charmingly written and superbly illustrated book on *The Home-Life of Borneo Head-Hunters; its Festivals and Folklore*. At the same time that Dr. Furness appreciates the good qualities of his native friends, he also points out some of their less estimable traits, for example, there is a gruesome account of the "blooding" of a boy, in the chapter on the early training of a head-hunter.

The book begins with a description of the domestic life in the remarkable communal houses which are characteristic of all the peoples of Borneo, except the Malays and the nomads of the jungle. The ceremonies at the naming of a chief's son contain many suggestive incidents; indeed all through the book there are many customs which doubtless will be quoted in the synthetic writings of students at home. Many of these customs corroborate or supplement the information given by former travellers in other countries, while some will be found not to have been previously recorded. The greater part of the book is taken up with an account of a war expedition and a peace-making, these two chapters give a vivid account of the manner in which Rajah Brooke's Government is administered. The Residents have to exercise diplomacy, swift action, bravery, and consideration for native custom, and it is under such circumstances as those so faithfully depicted by Dr. Furness that the peculiar fitness of the *régime* of Rajah Brooke for the local conditions is fully justified. The chapter on personal embellishment is full of original matter, and several plates of tattoo patterns are given.

All the indigenous peoples of Borneo live under the thralldom of omens, and in the chapter on *permantong* or *lali*, the irksomeness of the cult of omen-animals is well exemplified. Very tedious are the formalities that have to be observed before the jungle can be cleared preparatory to sowing the hill rice, and at harvesting there are many taboos. The method of collecting camphor is described, and in Borneo, as in the Malay Peninsula, most tribes use a "camphor language."

The book deals mainly with the Kenyahs and Kayans, the strong agricultural communities of the interior, and a pleasing account is given of a visit to those gentle savages, the nomadic Punans. Certain of the weak and scattered agricultural tribes that have collectively been classed as Kalamantans are dealt with incidentally. Dr. Furness

does not profess to offer an ethnological treatise on the native tribes of Borneo, and therefore many tribes are unmentioned, while others are barely alluded to. But within the limits he has set himself, the author does give an accurate and fairly complete account of the family life of a group of peoples in a low but not primitive stage of culture.

Apart from the description of incidents and ceremonies, and of the sayings and doings of men and women, the mental and moral atmosphere of native life is faithfully rendered, and to this extent, besides being a storehouse of fact, the book is a lesson in comparative psychology. A special word of praise is due to the eighty-eight heliotype plates, which are excellent reproductions of the author's beautiful photographs.

A. C. HADDON.

America: Folklore.

Cushing.

Zuñi Folk Tales. Recorded and translated by Frank Hamilton Cushing. New York and London: G. P. Putnam's Sons, 1901. **7**

The stories here presented to the reader were collected by Mr. Cushing during his extended intercourse with the Zuñi. The translation is a veritable *tour de force*. Its excellence is such that though in reading the stories we find ourselves obviously in the presence of a foreign and barbarous civilisation, we are seldom reminded that originally they were told in a language differing fundamentally from that in which they are presented to us. The volume is thus a remarkable testimony to the powers and culture of the gifted man whose name it bears, and who passed away a few months ago in the midst of a brilliant career.

The stories themselves are Zuñi, redolent of the *mesa* and the desert. But they often embody conceptions common to the human race. Here, for instance, is the counterpart, most touchingly told, of the classical tale of Orpheus and Eurydice. Here is the Zuñi Cinderella; only she does not win the prince. She is a poor turkey-herd, who desires to join the dance of the sacred bird, and is furnished by her flock with the clothing and ornaments necessary, but forbidden to tarry too long at the festival. She forgets, in the excitement of the dance, the charge laid upon her by the turkeys and is reduced to the misery of her previous life. One of the most interesting and important tales in the book, on account of its bearing on the question of the migration of stories, is that of the cock and the mouse. The Italian version from Professor Crane's *Italian Popular Tales* (which is here given for comparison) was told by the author to three Zuñi friends at Manchester in New England. About a year afterwards at Zuñi he was surprised to hear one of his friends reproduce it, with embellishments and adaptations to Zuñi life. There could be no mistake as to its being the same tale, because Venice and the Italians were mentioned in it. The incident is certainly one to be pondered by all who are interested in folk-tales and their problems.

Among the Zuñi customs described here are many dances and festivals. The marriage ceremony is simple, consisting in eating together and in a blessing by the maiden's father, and his adoption of the bridegroom as a son. The Zuñi, it may be noted, are in the stage of mother-right. The tale elsewhere represents a maiden as marrying two brothers, apparently a reminiscence of polyandry.

Zuñi philosophy was treated by Mr. Cushing in his monograph on Zuñi creation myths in the thirteenth report of the Bureau of Ethnology. The present work must be regarded as supplementary to that. It does not directly deal with Zuñi philosophy, but it fills in the outlines sketched in the myths, and is incomprehensible apart from the ideas expressed in them. Taken together with the myths, it is a fascinating presentment of the mental attitude of a people dwelling in the western deserts and but little raised above the status of savagery. As the last contribution of its author to anthropology it will always have a special and melancholy interest apart from its scientific claims.

E. SIDNEY HARTLAND.



FIG. 1.



FIG. 9.



FIG. 2.

FIG. 3.



FIG. 6.



FIG. 5.

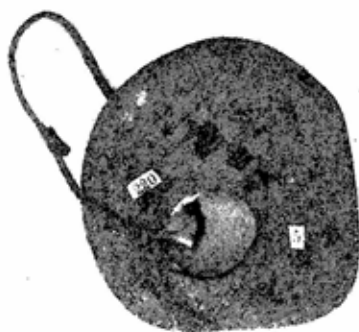


FIG. 4.



FIG. 11.



FIG. 10.



FIG. 7.



FIG. 8.

ORIGINAL ARTICLES.

Folklore.

With Plate B.

Elworthy.

On Perforated Stone Amulets. By F. T. Elworthy, F.S.A. *A Paper read before the Anthropological Section of the British Association for the Advancement of Science, Belfast, 16th September, 1902.* 8

One of the most widely-spread of popular superstitions is that relating to stones having a natural perforation. These are everywhere believed to be inimical to all kinds of witchcraft, but more especially are they reckoned as protectors against the much-dreaded yet ever-present Evil Eye.

In England the virtues of a naturally-holed stone are known from Lincoln to Cornwall, and probably from Berwick to the Isle of Wight, as effective preservers of both man and beast against the malignant doings of witches, but more particularly are they protective against damage to growing crops in gardens or elsewhere, and to domestic cattle, including pigs; all of which are thought to be particularly liable to spiteful injury.

"On paying a visit to a sick woman in Lincolnshire," a friend writes, "I noticed a whorl in the garden hanging upon a fruit-tree, and on asking her what was the use of that round stone with a hole in it, she looked very mysteriously, and after a long pause said, 'I will give it you if you like, but I do not think you would wish to have a witch stone.' She then opened the door and took down a three-cornered flint, that I had not noticed on entering, from a nail at the side of the door. It was hanging by a loop of tape, and was covered with cobwebs, so that it must have been there untouched for a long time. On giving it to me she explained that its having a hole through it, and its having been found, without being looked for, made it a witch stone. She said that it would prevent all witches from entering the house. After accepting this, I showed her the whorl in the garden; this also she gave me, and said she thought I meant the stone from beside the door-fastening which she had given me before, for she had forgotten about the other one in the garden." She said, "We never tell gentle-folks about such things for fear they will laugh at us, but we all keep witch stones, and that I have given you was my grandmother's, and we have had it more than a hundred years." Another woman later on in the same neighbourhood who wished to show some mark of gratitude said, "I will give you our witch stone, but please do not let anyone know." She then gave me a holed stone which had evidently been worn or carried about a great deal, as it was quite smooth. We do not know where he got the knowledge of their virtues, but it is most likely that Butler was acquainted with the superstition in his native Worcestershire when he wrote, "Chase evil spirits away by dint of sickle, horse's shoe, hollow flint" (*Hudibras, Part II., Canto III., l. 291*).

In some districts witches, in others pixies, and in others their malignant works have to be circumvented, but in all the root idea is the same—that the mischief is worked by the maleficent glance. I know at this moment a retired farmer who is in declining health, as must be expected at his age, but who persists that all his ailments arise from his being "overlooked," the usual phrase in Somersetshire.* Against this influence, never supposed to be absent from cattle, we have many specifics and many professional witch doctors. Quite recently (June 17, 1902) I heard of a large and well-to-do farmer in Somerset, whose name was given to me, who had within the present year called in and paid a considerable sum to a well-known "white witch" for removing a spell that was causing sickness amongst his cows. My informant told me that the remedy had proved effective, for no more cows had been attacked afterwards.

* Since this was written, the man has died, but up to the last persisted that he was the victim of malignant personal influence.

If this is happening daily among men who would deeply resent the idea that they were either superstitious or uneducated, what may we not expect to find, if we search for it among the labourers of such employers, notwithstanding all the modern and enlightened teaching—technical, scientific, and all the rest of it—of our unimpeachable school boards, to say nothing of other less assuming elementary schools? It may be worth mentioning that the facts here stated happened, and are happening, in school board districts. Indeed, I have recently had abundant evidence that no experience, nor even the highest education, have any effect against inbred traditional superstitions.

In Plate B. I have reproduced several specimens of the small holed stones with which we are dealing, that have been actually used as protectives in the parish in which I live. Here they are known as *holy vlints*, of course an obvious corruption of *holéd*. They are not by any means common in the district but are occasionally found among the chert of our greensand hills as well as water-washed pebbles in local rivers: we have no real flints. Their natural perforations are looked upon as inexplicable and somewhat supernatural, hence the short step from *holéd* to *holy* is the naturally easy result of association. Whatever in nature is unaccountable is believed to be beyond the laws of this world and to be therefore from above, consequently it is held to be sacred; and thus the development of the idea naturally becomes helped out by coincident approximation of sound.

Some of these local stones I have given to Dr. Haddon, and one which I still possess (Fig. 1) was found by my wife in my own garden. It had been placed in a crevice of an old wall, and could not have been there very long—but I am only able to guess who put it there. It is evidently a river-washed limestone pebble, though it is very probably further worn by having been carried in the pocket; moreover, it is of a kind quite foreign to the neighbourhood and totally unlike any of the stones of which the wall is built. The other specimens from this neighbourhood were suspended from trees, one especially was given to me as having been hung upon a "nit-bush." All have been used as charms, and are genuine *holy vlints*.

I also figure two holed stones which were recently hanging up just inside the door of a house at Menheniot in Cornwall (Fig. 10).

Another of those which I figure is from Antrim (Fig. 2), where this kind of stone is hung up on cowhouses and stables to protect cattle; moreover, in that country, a stone like this is frequently boiled and the water given to the animals in case of sickness. I consider this last to be a late development, and an attempt to apply a mystical remedy in a practical manner. Many such attempts in other ways might be cited, but we are only concerned here with special and well authenticated facts.

By far the most frequent and persistent use of these holed stones, with which I have become acquainted is in a particular district of southern Italy, from whence I figure several specimens (Figs. 3, 4, 5, 6). These were purchased at different times, and were taken from the doors or windows to which they were attached when obtained. The strings, too, are in each case those by which they were suspended. There was no special difficulty in obtaining them from their owners, who made no hesitation in saying they were *contro malocchio* or *contro la jettatura*. In most cases they were hung over the doors of shops, and they are often seen accompanied by a goat's horn or a horse-shoe by way of reinforcement. One, however, was hung by a nail against the inside of the door of a little shop of the usual huckster sort, which opening outwards, as they all do, conspicuously displayed the stone, shown in Fig. 7, hanging on the front of the folded back door, immediately over the woman's head, who, like all her class, sits all day long at the open doorway, knitting or spinning, or doing some other female work. She made no difficulty, after a little chat and the usual bargaining, at parting with it, admitting that probably she would soon get another from somebody who would find it on the beach close by. She frankly owned that it was hung up *contro il malocchio*.

Throughout this district—which, by the way, is quite limited—these stones have a local name analogous to our *holy elints*—*pietre boccate*—and I have never been able to find out this particular kind in any other part, though I have searched more or less from Taranto to Perugia. Indeed, I found at the latter place that even Dr. Bellucci, the well-known antiquary and collector there, has but few of them, although he knows them well. He possesses a very large collection of perforated gems and corals with ancient beads of large size, but these pebbles were unknown to him under the southern name. The few stones he has of this kind with *foro naturale* he calls *pietre contro le streghe*.

In the neighbourhood where these holed stones are common there is one rather larger than either of my examples, but sea-worn, hanging at the side of the cowhouse door belonging to the hotel at which we frequently stay. Its position is precisely similar to that described as at the cottage in Lincolnshire, and, moreover, it is accompanied by the ubiquitous horse-shoe.

In the Edinburgh Antiquarian Museum is a similar holed stone, said to have been hung up on a "cowbyre to protect the cattle." There is also a larger collection of other holed stones; use not specified. Two or three of those I show from Southern Italy are no more than sea worn pieces of common pottery; still, as I was careful to enquire in each case, it was called *pietra boccata*. One of these (Fig. 8) was hanging at the side of the lintel of a rather respectable dwelling-house. Indeed, I cast covetous eyes upon it several times before I could see the owner of the open door. In shape, this specimen will be noticed as being almost identical with a glass object (Fig. 9), manufactured in Bohemia, which I exhibit as a trade article, made for sale to the natives of East Africa. The number of specimens I possess of similarly manufactured charms show that there is a considerable industry of such articles, so far as I know, only "made in Germany."

In Europe the virtue of these things consists first in the holes being non artificial, and next in their being found under natural conditions, but these limitations as to origin are evidently not thought essential in less civilised or rather less sophisticated countries.

In all these instances the substance or material of this kind of amulet seems to be of no importance, but the *hole* is that in which the value consists, and there is much evidence, both ancient and modern, that the mere perforation has been the real seat of the virtue that has been ascribed to these and various other objects.

I have also two pieces of naturally perforated coral from Perugia in the form in which Italian women wear that highly-protective substance; men wear it in quite another shape. This is not a mere bead (Fig. 11), but is worn alone as an amulet, and I submit that in this case, as in the holed stones, the virtue of this very common prophylactic lies in the perforation as much almost as in the coral itself. I would even suggest that in the perforation of ordinary beads we have their true value and *raison d'être*.

Nearer home we find direct evidence as to this belief in the mere perforation as a protection against malign influence. "These 'holy stones,' sea-rolled flints with a "natural bore, (used to be) tied as charms inside the bows of the Weymouth boats. I "have watched a boatman in the act of fastening one in his craft" (H. J. Moule, *Notes and Queries*, 1895, July 20, p. 52).

In Somerset to-day seafaring folk hold the protective virtue of simple perforation very strongly. A coasting sailor living at Combe near Bridgwater in 1898, said to a friend of mine that he and his mates would never allow a shoulder of mutton bone to be thrown overboard until a hole had been made through it "to keep off the fairies."

The difficulty of arriving at the real meaning of any superstition is well known, and I confess never to have been able to get anything more definite in my own native

county than that the *holy vlints*, like the horse-shoes, "will keep off they there pixies and witches." How close the connection, even including the time-honoured holy sixpence, may be between these small perforations and the much more widely-known large holes may well form matter for discussion. My humble opinion is, that it is very close indeed. Much information on this subject will be found in *Notes and Queries*, 8th S., V., 308, 397; VI., 55, 153; VII., 413. F. T. ELWORTHY.

England: Neolithic.

Clinch.

On some Ancient Subterranean Chambers recently discovered at Waddon, near Croydon, Surrey. By George Clinch, F.G.S. A Paper read before the Anthropological Section of the British Association for the Advancement of Science, Belfast, 11th September, 1902. (Cf. MAN, 1902. 112.)*

9

The discoveries dealt with in this note were made in the grounds of Waddon House, near Croydon, until recently the residence of the late Mr. Philip Crowley, F.L.S.

In June, 1902, some excavations for a projected sewer in these grounds brought to light three subterranean chambers cut in a bed of compact sand. The chambers were found to be partly filled by sand which had probably been washed in by the rain. On the removal of this loose sand, however, a compact floor was discovered in each chamber at a depth of about 15 ft. below the surface of the ground. It was also found that the chambers were of flat bee-hive shape, about 7 ft. in height, and varying from 12 ft. to something less in diameter. The regular form of the chambers was remarkable, but it was found that it might have been produced by an excavator standing in the centre of the floor and using a wooden or other tool. Once made in this way, there would be little fear of the roof falling in, because the sand, owing to the slight admixture of clay which it contains, is remarkably hard and firm.

Each chamber had its independent oval-shaped opening on the south-south-east side, and it is pretty clear that there was no other means of access to the chambers until their domed roofs were cut into during the construction of the modern sewer-trench. This trench was fortunately made in such a way as to bring these three chambers to light without seriously damaging them, and it was found possible to preserve them for a sufficiently long time to allow of a careful examination not only of their interesting and ingenious construction, but also of the loose sand lying upon the floors, and the material with which the entrances and lateral avenues of approach were filled. It was thus possible to give much closer attention to several points than would have been the case if the chambers had collapsed, or if they had been discovered and entered by their ancient arched doorways.

Some of the observations made, particularly in connection with the relative positions of the hard, unmoved sand and "made earth," have proved of great value in the intricate but fascinating work of tracing the ancient environments of these sepulchral chambers.

Upon removing the loose sand which covered the floors of the chambers with an uneven layer, several cores and chips of green-coated flints were found, together with some small fragments of imperfectly baked pottery and some larger pieces of Romano-British pottery. The presence of flint implements of the green-coated variety within the chambers is of great importance, because such flint, which is tough and specially suitable for the manufacture of implements, occurs at the base of the Thanet beds, and it is in those sands, some 10 ft. or 15 ft. above the base, that the ancient chambers were excavated. It is pretty evident, therefore, that the flints were procured at a lower level (probably near Waddon Railway Station, where there is an outcrop of the beds in which they occur), and brought up the hill to the chambers. This is a piece of work which obviously could not have been done by rain-wash or any similar force.

* Compare also the discussion at Belfast, reported *The Times* of the 13th September 1902, and the author's letter in *The Times* of 15th September 1902.

The worked flints found actually within the chambers consist of a large proportion of cores of green-coated flint and some flakes and chips broken from them, and a smaller proportion of cores of ordinary chalk flint. It is probable that some of the more minute pieces of flint were overlooked, as among the sand thrown out a considerable number of small flakes, including a well-made saw, were subsequently found. In the loose sand, fragments of pottery, evidently of Romano-British character, were found.

In the sand filling up the lateral avenue to one of the chambers several fragments of mammalian bones were discovered, including one or two which once belonged to a young specimen of *Bos taurus* (? *longifrons*), also bones which have been identified as those of the dog or wolf, sheep, pig, &c. These were in a very fragile state and have been treated with size in order to strengthen them.

Among the various subterranean excavations in Great Britain there seems to be nothing to which the Waddon chambers can be exactly, or even approximately, likened. The most superficial examination would be sufficient to prove that they belong to an entirely different class of excavations to those commonly known as deneholes. Their small dimensions, the absence of a perpendicular shaft, and their occurrence in sand, are among the most obvious points of dissimilarity. Their form and plan, too, are equally unlike those of deneholes. On the other hand, they do not present any feature in common with mines for flint (those at Grime's Graves and Cissbury, for example) or the curious beehive-shaped buildings found in 1883 under the surface of the ground in the Isle of Purbeck.*

In looking for similar excavations on the continent of Europe, the chambers which seem to approach these most closely in shape, size, and particularly in plan, are certain underground excavations at Palmella, in Portugal, which, as M. Cartailhac† has shown, were chiefly devoted to sepulchral purposes, and belong to the latter end of the period of polished stone.

M. Cartailhac draws attention to a feature which occurs in the Palmella chambers, and also in those at Waddon, viz., the incurved walls on each side of the entrance (Fig. 1). He points out that this arrangement was probably made as a provision against the special wear and rubbing to which that part of the chamber would be subject. It would seem, therefore, that these chambers were frequently entered, and the natural inference is that they were occasionally used as shelters or dwellings; but if, as will presently be shown, the tomb chamber was modelled on the plan of the dwelling-house, it is conceivable that this part may have been reproduced either as a meaningless or unconscious feature, or as an intentionally realistic detail.

In the Palmella chambers as well as those at Waddon we find the same flat floors, hemispherical, vault-like sides and roof, and a single lateral avenue leading to each.

In France there are some subterranean sepulchral chambers which present certain features in common with the Waddon chambers. Examples are recorded from La Tourelle, near Quimper,‡ Brittany, &c., but they seem to belong to a somewhat later period than those at Waddon.

It may be noted here that the subterranean chambers of Mycenæ, called by Tsountas "chamber tombs," offer some points of resemblance to the Waddon chambers. Both

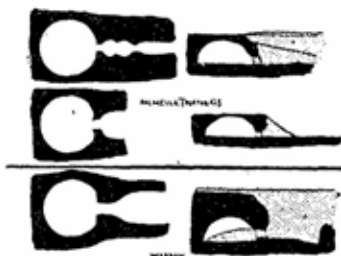


FIG. 1.—PLAN OF SUBTERRANEAN CHAMBERS AT PALMELLA, PORTUGAL, AND AT WADDON, SHOWING INCURVED WALLS AT SIDE OF ENTRANCE.

* *Proceedings of the Geologists' Association*, Vol. VIII., No. 7 (July, 1884), pp. 404-410.

† *Matériaux pour l'histoire primitive et naturelle de l'Homme*. 3^{me} Série, T. II., 1885, pp. 1-18

‡ *Archæologia Cambrensis*. 3rd Series. Vol. XIV., pp. 293-311.

have been excavated in a hill side, both are beehive-like in form, and both are approached by horizontal avenues. There are, of course, some important differences, particularly in the matter of dimensions and materials, but the plan is practically the same.

Returning to the Waddon chambers it may be added that, whilst careful searches on the floors and avenues have revealed the presence of mammalian bones, no human remains have been identified. Notwithstanding this, it is impossible to avoid the conclusion, after a most careful sifting of the evidence, that these chambers were primarily intended to serve as sepulchral places during the latter part of the neolithic age. That they were subsequently disturbed seems pretty clear from the later objects found in the filling-in sand, and from certain rude, possibly mediæval, scratches on the curved roof which have been variously interpreted by different observers as representing a bird, an animal, and a boat.

It seems probable that the hard sand in which the excavations were originally made was buried under a considerable thickness of made earth when the lawn was levelled. This work was probably done when or soon after the house was built, perhaps about the middle of the 18th century.

In the district to the south-east and east of Waddon there are many hut-circles which have been attributed to the neolithic age. They are circular in plan with marks of entrances on the east or south-east side; and one can hardly fail to be impressed by the strong resemblance in dimensions and plan of those circles with the Waddon chambers. Moreover, on the steep side of Croham Hurst, about three miles to the south-east of Waddon, traces of similar dwellings are recorded, and it seems extremely probable that the men who made the sepulchral excavations at the latter place may have been influenced by those examples of hillside dwellings.

The chambers for the dead were, in fact, practically copies of those for the living, and when, as in the case of the Waddon site, it was desired to find a secret place of deposit for the dead, where violation would be improbable or impossible, the chamber was excavated in an underground situation.

As a contribution towards the solution of the interesting question of the position, shape, plan, &c. of prehistoric dwellings, the Waddon discovery is of great importance. In the vaulted roofs, cut in the hard sand, we see a durable copy of the ordinary hut built on the surface of the ground, with its covering of interlaced boughs, benders, and basket work, and in the small opening by which the underground chamber was entered from the lateral passage, we see probably an exact imitation of the doorway of a neolithic habitation. This, judging from those of the sepulchral chambers, was oval in form so as to allow of the easy passage of a human body into or out of the hut, but with no superfluous space for unwelcome draughts or excessive ventilation.

It is worthy of note that the same idea of interment within a house or a house-like receptacle survived during the Bronze age, but as cremation usually preceded the rite of burial among that race a large house was no longer necessary for the remains of the dead, and a small earthen vase shaped like a Bronze-age house, and usually called a hut-urn, was employed as the depository of the ashes of the departed.

The tradition of the hemispherical neolithic hut was carried on in the Celtic bee-hive dwellings of Cornwall, Wales, Scotland, Ireland, and Gaul. This form of dwelling may be regarded as the prototype of the circular hill-top fortresses such as Chun Castle, &c., and, indeed, of the mediæval military architecture of England.

The Bronze-age dwellings, on the other hand, whose forms have been preserved by hut-urns, display a tendency to squareness and angularity which is clearly due to the employment of timber in their construction. The influence of the use of metal was shown, even at that early period, in the form of the domestic dwelling. The possession of

bronze tools made it possible to work timber into the requisite forms of beams and rafters, and flat walls and gabled roofs took the place of the interwoven branches and wicker work of the earlier period.

Our modern houses, in which timber is still largely used, may be regarded as the direct descendants, with various modifications, improvements and developments, of the Bronze-age hut.

GEORGE CLINCH.

Obituary: Powell.

Myres.

John Wesley Powell: born March 24, 1834; died September 23, 1902. 10
By John L. Myres, M.A., Secretary of the Anthropological Institute.

British ethnologists all the world over unite with the ethnologists of America to deplore the loss of a pioneer and master-builder of their studies, the explorer of the canyons of Colorado, the organiser of the geological survey of the United States, and the founder of the Bureau of Ethnology.

John Wesley Powell was born at Mount Morris, New York, on March 24, 1834, of parents recently arrived from the "old country." Brought up on his father's farm and educated as occasion allowed, he attended Jacksonville College for a while and followed a special course for two years at Oberlin, supporting himself by teaching and devoting his leisure to natural history and pedestrian travel. In the Civil War he served in the 20th Illinois Volunteers and attained the rank of colonel, giving proof already of the gift of organisation and personal influence which were to serve him so well later on. But at the battle of Shiloh he lost his right arm; and though in a few weeks he was found at the front again, he returned willingly to scientific work as soon as the war was over, and taught geology for a while at Bloomington and at Normal, Illinois.

It was under these circumstances that a geological expedition, organised in 1867 for the benefit of his own pupils, led to a brilliant feat of scientific travel, and brought his name prominently before the public and the Government. The surface geology and configuration of the canyon region of Colorado was, of course, already fairly well known; but the character of the canyons themselves and the details of the course of their streams were thought to be inaccessible. Powell and his party descended the principal canyons, explored them from end to end, and accumulated, at relatively small cost, and without serious accident, a mass of quite new material, bearing directly upon the utilisation of the water supply of Colorado and the reclamation of its desert areas, which no one could afford to ignore. A regular geological and geographical survey was projected on the lines of Powell's expedition, funds were voted by Congress, and the Smithsonian Institution was entrusted with the supervision of the work. It is worth noting, meanwhile, that this same expedition gave Powell his first effective introduction to native Redskin life; and, further, that from his first voyage onward, definitely ethnological research formed an integral part of every survey on which he was ever engaged.



JOHN WESLEY POWELL.

Other workers—Hayden, Wheeler, Clarence King—were quickly in the field ; but it was not till 1879 that, mainly through Powell's influence, the various separate enterprises were merged in a single geological survey of the United States, organised as a bureau of the Department of the Interior and controlled in the first instance by Dr. Clarence King.

This step left Powell free to devote himself to those ethnological studies which had by this time the first place in his mind ; and in the same year a Bureau of Ethnology was created under his supervision in connection with the Smithsonian Institution. The distinct geographical survey, which had formed the third member of Powell's original scheme, was, indeed, never established ; but on Clarence King's resignation in 1881, Powell became Director of the Geological Survey as well as of the Bureau of Ethnology ; and it was under his administration, which lasted till 1894, that the activities of the Geological Survey were widened till they included a large part of the field of geography also.

In his later years, as the band of his pupils and associates grew up around him, Powell was able to leave more and more of the administrative work of the Bureau of Ethnology in their hands, and to devote himself, as ever, to pioneer-work in the dim regions which lie, as he believed, on the further side of anthropology. From geology he had turned to geography, from geography to ethnology ; now he began to turn once more from ethnology to general anthropology—for which some scattered chapters of a text-book seem to remain—and from general anthropology to psychological and philosophical considerations. An essay on "Truth and Error," which came out in 1899, was apparently intended as the first member of a trilogy ; the second, "Good and Evil," appeared more recently still as a series of papers in the *American Anthropologist* ; but the third, designed to treat of æsthetic judgments, remained unexecuted at his death in September 1902.

Powell's output of published work was not large, and the peculiar brevity of his style makes it look even smaller than it really is. His peculiar gift, moreover, lay less in the production of original work on his own account than in the far-sighted origination of practicable schemes of enquiry and concerted enterprise ; and in the personal stimulus which enabled him to gather round himself the best intellect and energy among the younger men, and to train and direct them to realize his plans. By his own example, and by his generous communication of new and far-reaching ideas to the men whom he thought capable of realizing them, he brought up a family, rather than a class, of devoted and active fellow workers ; and his great business capacity, his gift of finance, and his genius for discerning and expounding irresistibly the practical aspects of purely scientific results, gave business men and public officers a confidence in his judgment and his methods which made it possible for him to ask large sums for research and for organisation from the public and from the Government ; and, usually, to get what he asked. Sometimes, indeed, he was clearly in advance of his age ; his great scheme for a comprehensive geographic survey has never been fully accomplished ; and it took twenty years to educate legislative opinion to enact, shortly before his death, the provisions of his reports on the reclamation of desert lands. But Powell's supreme claim to recognition is that, again and again, he divined accurately how much advance in organisation or expenditure would be permitted by public opinion at the moment, and set himself promptly to accomplish that and no more. Other things, which he saw no less clearly than those which he achieved, would come in due time ; but it would be his friends or his pupils, not he, who would see to their realisation ; so to these his thoughts were communicated fully, concisely, ungrudgingly. For himself, his day's work is monument enough. The Geological Survey is perhaps the most powerful implement which the American people possess, for the perfect economy of their heritage. The Bureau of Ethnology gave to the study of native races—and not in America alone—a motive and an encouragement, a

standard of organization and achievement, and a great sequel of practical applications of many kinds which have been of the profoundest significance in the history of anthropological studies.

JOHN L. MYRES.

Linguistics.

Codrington.

On the Stability of Unwritten Languages. *By the Rev. R. H. Codrington, D.D.*

11

The recent publication for the Hakluyt Society of the reports of the Spanish discoverers of the Solomon Islands seems to give an opportunity of considering the stability of unwritten languages. It has been commonly believed and stated in books of authority that savage languages, unwritten, uncultivated, without the oral literature of national songs, and without the control of the speech of conquerors or rulers, are subject to continual and very rapid change. Examples have been cited of languages which by such changes have in a very few generations practically disappeared. This belief probably does not hold so strongly as it did, but a test applied to it must be of use, and such a test these reports seem to supply in a remarkable manner.

The Spanish navigators who discovered the Solomon Islands made their reports in 1567, and recorded several native words. The islands passed at once out of knowledge, and, before very long, almost out of memory. It may be said that no record of the languages of the group was made for nearly 300 years, when one of the dialects of San Cristoval was learnt and written for missionary purposes. It may be certainly affirmed that Bishop Patteson was the first European who could freely use the native tongues. He wrote and spoke in 1863, when I first saw the Solomon Islands, the language of part of San Cristoval, and that of part of Ysabel, with ease and, as the natives always testified, with correctness. Before his death, in 1871, he had printed vocabularies and phrase-books in both those dialects, and since that time the language of Florida has become familiar to Melanesian missionaries. Although, therefore, the words recorded more than 300 years ago by the Spanish discoverers are but few, there is abundant knowledge of the present form of the languages to be referred to, if the possessors of such knowledge could be reached.

It is shown, in the introduction to the book, that out of thirty-eight native words recorded by the Spaniards, twenty-two have been identified. Another of some interest I have since observed.*

So far, then, as a very short vocabulary is a test, it is plain that the Solomon Island languages have not undergone much change in 300 years. With all the difficulty of correctly hearing, remembering, and writing down strange words, the Spaniards have recorded what is in great part easily recognised; and it is in vocabulary particularly that uncultivated languages have been believed to be unstable.

But, apart from vocabulary, and even more than from vocabulary, the stability of the Solomon Island language seems to be shown by the still unchanged limits of the dialects which come into view.

1. When the discoverers landed in Ysabel they found two chiefs with their followers, and they do not appear to have been aware that there were two dialects. But the words they recorded can be separated, so far as they can be recognised, into those belonging to one or the other of the two dialects now spoken in the district. It is not merely that there were and are two dialects, very distinct, in that part of a large island, but that both were present, and are present, at the point where the Spaniards made their landfall. They are both where they were and the same that they were.

* Page 311. The natives were laughing in ridicule of the Spaniards, saying *May nabolos*. *Mai* is "hither," used by the Spaniards evidently for "bring," and they added their plural *s*, meaning "bring pigs." This is quite the way in which European visitors now speak the native languages.

2. Again, one of these Ysabel tongues, that of Bugotu, is closely allied to the language spoken in Florida and along the coast of the large island of Guadalcanar up to a certain limit. We find, accordingly, that when the discoverers pass from Ysabel to Florida, they give the native word for "pig"—in the present Florida form—*mbolo*, not in the Bugotu form, *mbotho*. The change between those two parallel dialects is shown to have been the same then as now, and with the same boundary.

In the same way a native of Ysabel speaking the Bugotu dialect would at the present time find a form of speech intelligible to him through Florida and along Guadalcanar, but when he arrived at Marau Sound, opposite San Cristoval, he would find that he would cease to be understood; he would have entered the region of the dialects allied with those of San Cristoval. It was so with the interpreters taken in the Spaniards' brigantine; when they came to the end of the great island and again fell in with the inhabitants, "our people did not understand what they said" (pp. 306, 341). It is at this point that the Spanish reports begin to introduce native words belonging to this distinct region of language, words marked by the change of article from *na* to *a*, and by the appearance of *gu* to represent *w* so common in this district, but not heard in Florida, and hardly in Bugotu.

3. Another point may be observed. The Spaniards were struck by the ease with which the Ysabel people pronounced their language (pp. 113, 166). It is remarkable that in Ysabel the sound represented in Spanish by *ñ* is exceedingly common, being generally very rare in Melanesia. The natives do not, like Spaniards, confuse *r* and *l*, *b* and *v*, as those of San Cristoval and Ulawa do, but they would pronounce Mendaña's name exactly; and Mendaña hearing a native say *ini koragna*, "here is the middle of it," though he misunderstood it and wrote it *yne colanha*, has left a bit of the Bugotu language, and of Bugotu grammatical construction, which is perfect now. It may be added that the combination *fl*, *hl*, *gl*, shown in a few words of the vocabulary is limited now to the district in which the discoverers landed, and that they would hardly find *f*, as in *laquifa*, elsewhere. It is surely evidence of stability that a language in a small particular area should be tenacious of these sounds.

I may, perhaps, be allowed to add a few notes on points not belonging to language.

1. There can be no doubt, I think, that the "palmettos" cut down for food by the discoverers (p. 143) were sago palms. The Rev. H. Welchman, who has been much in Ysabel, assures me that the natives cut out the pith and cook it for eating. I have seen such sago pith in chunks, cooked for food, in canoes from Tikopia. But the Banks' Islanders and Santa Cruz people make starch from the pith and eat it in cakes. This is interesting as marking a line of culture, marked also by the use of a loom, which has not touched the Solomon Islands.

2. It is true that lances and arrows tipped with flint are not seen now (p. 351); but pump-drills armed with flint, from the Solomon Islands, may be seen in the British Museum and at Oxford and Cambridge. Dr. Guppy's statement that the natives did not know what the worked flints, common about their places, were, is quite mistaken. A few years ago flakes of flint were in daily use for cutting threads and carving. Bishop Patteson's phrase-book, 1866, shows that arrows tipped with bone were then in common use in Bugotu.

3. Catoira was quite right in saying that caps, *i.e.*, wigs, were made of human hair (p. 351). I have known a man let his hair grow long in order to have a wig made of it, and I have seen him wear the wig.

4. The savannahs noticed as conspicuous on Guadalcanar (pp. 40, 142) appear also on a much smaller scale in the Banks' Islands. They are permanent.

5. The tusks (p. 33) valued by the natives were undoubtedly the *vosa*, the tusks of the *vena*, the dugong, till quite lately of much account in Ysabel. R. H. CODRINGTON.

Malay Peninsula.

Annandale.

Notes on the Popular Religion of the Patani Malays. By Nelson 12
Annandale, B.A.

The scope of the present communication does not permit of my dealing with Malay beliefs regarding the souls of animals or things, or spirits of independent or uncertain origin, but I hope shortly to publish a more detailed account of the popular religion of certain parts of the Malay Peninsula in which these elements will be treated.

With each individual man or woman we find the following non-material elements associated in the beliefs of the Malays of the division of the Seven Provinces,* as the old kingdom of Patani is called under Siamese administration:—

(1.) The *Nyawa*, the life-breath, almost, but not quite, a material thing.—In the opinion of many it is that part of a man which goes to heaven (*surga*) or hell (*jehannam*) as the case may be. At any rate, it is the vital principle, and *ambil nyawa* (to take the life-breath) is a common euphemism for *bunuh* (to kill). So far as I can discover, the *nyawa* is always invisible. It exists in all animals.

(2.) The *Semangat*.—With the *nyawa*, many, especially those who are good Mahomedans, confuse the *semangat*, but the *semangat* is never the vital principle, it is rather the guiding and directing spirit. *Ambil semangat* means not to kill but to bewitch, to take the memory and reason. The *semangat* does not enter a baby until the moment that the umbilical cord is severed, while the *nyawa* is present three months before birth. It is the *semangat* which is acted upon by evil spirits, which have no power over a man unless his *semangat* is sick; its sickness may be due to bodily infirmity, mental trouble, or especially to fear. All animals, crops, minerals, houses, and even treasure-chests have a *semangat*. The equivalent in a boat is called *mayor*.

(3.) The *Ru*.—The *ru* is also confused with the *semangat* and the *nyawa*. Properly it is that which goes out of a man when he is asleep, and is peculiar to man. Little boys of the town of Kuala Bukar, the capital of the modern state of Patani, paint the face of a companion who falls asleep near the mosque; he cannot wake up, but sleeps on until his face is washed, for his *ru* does not recognise his painted face and will not return to him.

(4.) The *Badi*.—The *badi* is the wickedness or devilry in man, more or less distinctly personified. Sometimes it is regarded as an independent spirit (*hantu*), occasionally it seems to be merely an impersonal influence. It exists in the blood and originates from it; but how far it exists in the case of a Malay before death, and to what extent the manner of death develops it, I have not been able to determine. At any rate there is a *badi* in the presence of a living Panghyan or Semang, and if a Malay dies any sudden or violent death—if he “dies of being killed,” as the Malay phrase is—his *badi* remains by his bones and devours the *semangat* of those who approach them. For this reason persons who have died a “bad” death are buried in the jungle or in waste places away from human habitations. The *badi* is peculiar to man; to wild beasts other than tigers, elephants, rhinoceroses, and tapirs; and to termite mounds. The equivalent of the *badi* in a tiger is called *groh*; in any of the three other wild animals excepted, *kuang*.

Besides the *badi* of dead men there are other spirits arising in an undefined manner from defunct human beings which haunt cemeteries and the neighbourhood.

(5.) The *Jinn puteh* or Mahommed's parrots.—Though the White Jinn, or, as they are commonly called, Mahommed's parrots, are not, properly speaking, an actual element in men, yet one of them is believed to sit in the heart, or rather the liver of every Mahomedan, and to prevent him from becoming wicked.

* Patani (Tani), Tojan (Nawngchik), Jering (Yaring), Telubin (Saiburi), Jalor (Yalah), Rahman, and Legeh (Ra-ngé).

Magicians, *homor*, who have become so skilful at their profession that their sayings and doings are inspired by the spirits are known during life as *Kramat Hidup*, a phrase which may, perhaps, be translated "living shrines," and when they die their graves become objects of pilgrimage. But a *Kramat Hidup* does not really die, for "he lives on" in the woods and in the dreams of men," as a young Patani fisherman expressed it to me, revealing himself in dreams and in the jungle. He may even marry or give in marriage after he is seemingly dead, but is invisible unless he reveals himself. In a district comprising a large part of Upper Perak and Hulu Rahman a former Raja and *Kramat Hidup* has practically become a local god within the course of less than a century. There are many persons still alive who remember him in the flesh, but already every place that he is known to have visited has become sacred. Neither Malays nor Siamese (*i.e.*, neither Mahomedans nor Buddhists) will travel in his country without offering lighted tapers in his honour, visiting no shrine and using no formula of dedication, but "remembering him in their heart," as they say. Vows are made to him in sickness or trouble, and the most sacred oath that can be taken is by him. It is firmly believed that any one who steals so much as a twig from a certain peculiar clump of bamboo that grows on the southern bank of the Patani river, some little distance above the village of Bendang Stah, will inevitably perish, and it is said that this clump originated from an old bamboo condiment box thrown away by the said *Kramat Hidup* on one of his many journeys through the state of Rahman. NELSON ANNANDALE.

REVIEWS.

Craniometry.

Fawcett : Lee.

A Second Study of the Variation and Correlation of the Human Skull, with Special Reference to the Naqada Crania. By Cicely D. Fawcett, B.Sc., assisted by Alice Lee, D.Sc., and others, University College, London. *Biometrika*, Vol. I., No. 4, August, 1902, pp. 408-467. 13

A footnote on the first page of this memoir explains that it "is to some extent a product of co-operation among the biometric workers at University College," and that Miss Fawcett is responsible for most of the material, and Professor Karl Pearson for the "editing and arrangement" of it. On one of the last pages (p. 464) we read:—"If the professed craniologist should feel aggrieved that such splendid material should have fallen at first into mathematical hands, he may console himself with the knowledge that the crania will be available for further work when they ultimately reach the Anatomical Museum at Cambridge. He must also remember that the material was dug up and brought to this country with this direct purpose in view—that it should be used for the illustration of statistical methods as applied to craniometry—and that however little sympathy he may have with these methods, without them the present material would certainly not have been brought to England when and how it was. Let us hope that he will in the end pardon the method and even the errors of this paper for the sake of such material as it has indirectly made available for craniological purposes." If, as seems likely, the hand of Professor Pearson be traceable in this subtle tilt against the "professed craniologist," the present elaborate memoir may be regarded as a test specimen of what is to be expected from the application of his well-known statistical methods to physical anthropology.

Let us at once acknowledge the debt which craniometry owes to Professor Pearson and his fellow workers by the publication of their seven years' research upon the Naqada skulls. Five large plates illustrating male and female crania are inserted in the text. The appendix contains measurements upon about 400 skulls. Forty-eight measurements, most of them following the "Frankfort Agreement," are recorded as far as possible for each of these skulls. Obscurities in, and justifiable reasons for departing from, certain details of this "Agreement" are mentioned on pp. 415, 430, &c. Hence, whatever

criticisms we may be disposed to pass on the authors' conclusions, the data on which the latter are based remain as a monument, not only of indefatigable labour but of permanent serviceable value.

The crania were obtained through the generosity of the late Mr. A. B. Pearson-Gee from cemeteries, excavated during the season 1894-5 by Professor Flinders Petrie, near Naqada and Ballas. They belong to the so-called *New Race*, now universally recognised as the Old Race, which preceded the people of the earliest dynastic period. The skulls are hence between 6,000 and 8,000 years old.

Without doubt the ordinary craniologist will be terrorised at the extremely mathematical character of the monograph. Yet a very slight acquaintance with statistical methods will enable him to understand most of the seventeen seemingly formidable tables which confront him. Table XII. and the following twelve diagrams will assuredly lie beyond his powers. They may be taken to show that the peaks of frequency-curves, which occur so often in craniometrical investigations (invariably upon too small a series of skulls), "may be wholly due to random sampling and be no sign of "racial heterogeneity" (p. 454). Here, indeed, lies the great value of this epoch-marking, if not epoch-making memoir in its protest against the slipshod inadequate methods which physical anthropologists have until recent years blindly accepted and uncritically used.

Miss Fawcett seems justified in drawing the following conclusions from her measurements:—(i.) "We are dealing with a long-headed, narrow-faced race with rather round orbits" (p. 434). (ii.) "The Naqada race does not appear substantially nearer to the "negro—as judged by his modern representative—than the historic Egyptian as sampled "in the Theban mummies, or than the modern Copt" (p. 464). The thirty-nine modern negro skulls, however, with which the Naqada skulls are compared, are a very mixed series from "the north of Africa" (p. 425). (iii.) "In some features only the Naqada crania "are 'primitive or inferior,' in others they are 'advanced or modern'" (p. 464). (iv.) "The height of the male skull is greater, that of the female is less than the corresponding skull-breadth" (p. 436). (v.) Flower's ophryo-occipital length and the true "horizontal length give results so nearly identical with the far easier glabella-occipital " (maximal) length that the two former measurements, the authors recommend, "should "be dropped in future systems of measurements" (p. 437, footnote). But should they be dropped in the case, *e.g.*, of Australian skulls? (vi.) "Craniometry cannot in "future content itself with either the raw measurements, tables of mere averages, or "graphical exhibition of correlation results, but must adopt the methods of modern "statistical investigation, tabulating means, variabilities, correlations, and their probable "errors in order to draw safe inferences and make racial comparisons" (p. 464). (vii.) "The relationship between cranial characters as exhibited by their coefficients of "correlation . . . is seen to be low and to vary much from race to race. It is "therefore very doubtful how far it is legitimate to press results found for individuals of "one race upon those of another" (pp. 464, 465).

A strong, and to the reviewer's mind a justifiable, protest is entered in a long footnote (p. 425) against Mr. Randall-MacIver's plan of publishing his own peculiar method of tabulation, of measurements, unaccompanied by "simple lists flung together." But it is ridiculous that craniologists of their experience should complain because "throughout "his measurements never once has a skull stood midway between two units," *i.e.*, because he has not measured to a fraction of a millimetre.

"Quite a number of the skulls or bones" of the Naqada series, we are told, "had "duplicate numbers" (p. 466). "In very many cases, where the skull was found no "dating was possible" (p. 422). Hence it was impossible to decide from what graves such skulls had come, or by what kind of pottery, &c., they were accompanied. Table III. (p. 422) is an attempt to determine what differences, if any, exist in the head-length and

breadth measurements of thirteen male and twenty-three female skulls belonging to the earlier period (Petrie's sequence-datings 30-80) on the one hand, and of five male and nine female skulls belonging to the remaining period (sequence-datings 40-80) on the other hand. The results are just what the reviewer has some time ago* described in a similar—equally unsatisfactory, because numerically insufficient—series from Abydos. The head-length diminishes and its breadth increases in skulls of the later prehistoric period. Miss Fawcett and her colleagues, however, conclude that the differences are insufficient to indicate "a real class difference" (p. 423). One must confess there lacks here the "will to believe." The material is still inadequate for a final judgment.

Certainly, not long ago, it was assumed that the New Race was marked off by a hard and fast line from the dynastic people. But later archaeological explorations have made it increasingly evident, not only that dynasties existed in "prehistoric" times, but that the methods of burial, the pottery, and culture of the New Race (the "pre-protodynastic" people) persisted well into the dynastic period of the Early Empire, wherein it merged. Hence there is no proof that the Naqada skulls belong solely to the New Race. Indeed, early graves of the Early Empire reveal remains of sequence-dating 80. So we must conclude that the Naqada series belongs in part to the people of the New Race *plus* the Dynastic Race (if, indeed, there ever was a Dynastic Race, *i.e.*, if the later culture was the result of a distinct invading race, and was not peaceably developed or somehow borrowed elsewhere).

The authors compare the male Naqada skulls with 169 Theban mummies in "the Mook Collection at Munich," which, it is supposed, date from the eighteenth dynasty, and with 60 modern male Egyptian skulls "collected chiefly by Mook from a cemetery "near Cairo. . . . They are almost certainly Copts." It is unfortunate that no more trustworthy series than these were at hand. A "collection of Theban mummies," and, the fruits of pillage (probably at night by bribed fellahin) of "a Cairene cemetery" cannot be regarded as satisfactory material. Let us, however, admit that it is adequate for the demands made upon it, and let us examine the conclusions reached by the authors. "The "close resemblance in the majority of characters of Naqadas, Thebans, and Copts leads "one to believe that one is examining substantially the same race at intervals during "8,000 years" (p. 464). The tables on pages 426, 427, clearly show the close correspondence of certain measurements throughout these three periods. On the other hand, the skull-breadth increases and the skull-length decreases so that the cephalic index rises from 72.99 (71.78 according to Randall-MacIver) in the New Race to 75.07 in the Theban mummies and to 77.27 in the modern (?) Copts; and similarly with regard to the minimum frontal breadth and some other measurements. "If it be asserted that the "change is due to racial admixture, then the fact that other characters have remained "practically stationary is very difficult of interpretation, for the result of mixture would "be to alter these also" (p. 432). On the contrary, we should have thought it evident that when one variety is crossed with another showing some differences in character, the offspring (relatively speaking) retains certain characters of the first variety but assumes also certain other characters of the second.

The evidence of the changes undergone by a modern population rests on a collection of seventeenth century English skulls, which are compared with collections of criminal and of upper-class modern English (locality and number not mentioned). We are asked to conclude from these data that by the operation of "intraracial evolution" within a period of 300 years the average length of the English skull has been shortened by 5 or 6 mms., that the cephalic index has risen from 74.73 to about 78! Moreover, if we apply Dr. Alice Lee's well-tested formula for calculating skull-capacity from linear cranial measurements, the average skull-capacity of the seventeenth century English

* MAN, 1902. 51.

turns out to be greater by nearly 100 ccms. than the upper-class modern English! Can we accept such conclusions or trust the material whereon they are based? Can we infer that "a period of 100,000 years with evolution working only at the same rate would suffice" to have modified the skull from a form which the craniologist would hesitate to term "human" (p. 433)? Or shall we not rather suspect either that fallacies due to the random characters of insufficiently large samples or to differences of personal equation have crept in, or that the skulls of the two periods come from very different areas of England, where owing to diversity of racial admixture the same cranial dimensions have not equally predominated?

There are, therefore, justifiable reasons for doubting the validity of the assertion of the workers at University College that "the changes between prehistoric, historic, and modern Egyptians, even when they are greatest, are not greater than we find . . . between members of the same community [in England] at a few centuries interval" (p. 433). The problem, however, may be attacked in another way. We might expect that if the changes in certain measurements, visible as we pass from the Naqada skulls to those of modern Egyptians are due to racial admixture, the measurements of the latter series would show a larger average of deviations of the members of that series from their average (*i.e.*, a greater standard deviation) than the former. Professor Pearson and his colleagues find considerable evidence of such "increased variation as we pass from uncivilised and primitive people," but they believe it to "be due to less stringent dependence for survival on the physical characters in civilised man" (p. 440).

The question, moreover, arises, are we entitled to consider either the Naqada or the above English skulls as belonging to people of a single race? The authors think that we are "justified in treating our material as homogeneous and in speaking of a Naqada race and not merely of the Naqada crania" (p. 424). "If the [Naqada] material were markedly heterogeneous the variability in length and breadth of skull ought to be large as compared with admittedly homogeneous material" (p. 424). The standard deviations of the male Naqada skulls and of Bavarian, Aino, French, and English male series as regards skull length are 5.722, 6.088, 5.936, 7.202, 6.446 respectively, and as regards skull-breadth are 4.612, 5.849, 3.897, 6.068, 4.976 respectively. These deviations (and the "coefficients of variability" derived therefrom) are considered by the authors to be small enough to warrant the conclusion that the Naqada crania, the old Bavarian crania of Professor Ranke, and the Whitechapel English crania of Professor Thane constitute each a homogeneous series. They have left neglected the question whether a much larger standard deviation would result, were we to consider a series, say, of forty-nine male skulls of most diverse ethnic types, composed, *e.g.*, of fifteen Australians, seven Guanches, fifteen Eskimos, and twelve Chinese. This is the material which the reviewer set himself to work out, taking the data haphazard from Flower's well-known catalogue of skulls in the Royal College of Surgeons' Museum. The results gave him a standard deviation of 8.389 for the skull-length, and of 7.002 for the skull-breadth. We see, then, how small is the difference of variation between the Naqada skulls of Professor Pearson's series (which are of a "homogeneous character") and a series which is as heterogeneous as it could well be. Are we, then, not justified in considering the Naqada skulls and the others of Professor Pearson's series as if they had sprung from a mixture of races? If not, at least the problem is less simple than the writers appear to think.

It is difficult to believe with Miss Fawcett that the nasal index of the 100 Naqada males, which averages 51.08 (according to Randall-MacIver 50.03), justifies the application of the term "platyrrhine" to the New Race; still less that she is warranted in concluding (p. 434) that the New Race had flat noses. French and English craniologists are wiser than their German colleagues in setting the lower limit of platyrrhiny at

53 instead of at 51. Moreover, platyrrhiny—an unfortunate word—really implies not flatness but broadness of nose. Who supposes that the eighteenth or nineteenth dynasty Egyptians generally had flat noses? Yet the mean nasal index of the Munich collection of 166 Theban mummies of this period is 50.07. In reality, the difficulty raised by the authors (p. 435), regarding the comparison of their nasal indices with the nose-forms of Egyptian portraiture, is of their own making.

On page 436 we read that in total and upper (cf. Table Va.) “height and breadth of face, in nasal height . . . and upper face-index, the [? male] Naqadas approached the modern Negro. But in nasal breadth . . . and *nasal index* they are closer to the Germans. In . . . [total] facial index . . . and *nasal index* they are, perhaps, closest to a primitive race like the Aino.” The italics and square brackets are mine. The confusion is obvious.

It is clear, however, that such errors do not sensibly detract from the extraordinary merit of the production. The reviewer has advisedly styled it “epoch-marking,” for never again, it is to be hoped, will the old school be tolerated which collects a few measurements, dissects them, and publishes ill-founded conclusions. Anthropometry must leave its former path and strike a new one. How difficult and laborious is the latter the present memoir sufficiently demonstrates.

C. S. MYERS.

Japan.

Chamberlain.

Things Japanese: being Hints on Various Subjects connected with Japan. By Basil Hall Chamberlain. 4th edition, revised and enlarged. London: Murray, 1902. 22 x 15. Pp. vii-545 with map. Price 10s. 6d. net. **14**

Long residence in Japan has qualified Professor Chamberlain in a peculiar manner to speak with authority on things Japanese. When first he took up his residence in that country, Japan was still in the middle ages, and he has witnessed changes during that period which have made Japan one of the foremost powers in the East. *Things Japanese* is a book which requires but little recommendation, it is probably familiar to all who are interested in any subject connected with Japan. It embodies in a brief and popular form the results of investigations into Japanese manners, customs, and institutions which have made Professor Chamberlain's name so well known. The fourth edition of this little book, although considerably enlarged by minor additions, remains in all essentials unchanged. No addition has been made in the article on *Archæology* by W. G. Aston, nor to that on *Geology* by Professor Milne. A word must be added in praise of the selected bibliography appended to the end of each article, which has been brought up to date.

E. N. F.

Palæontology.

Zittel.

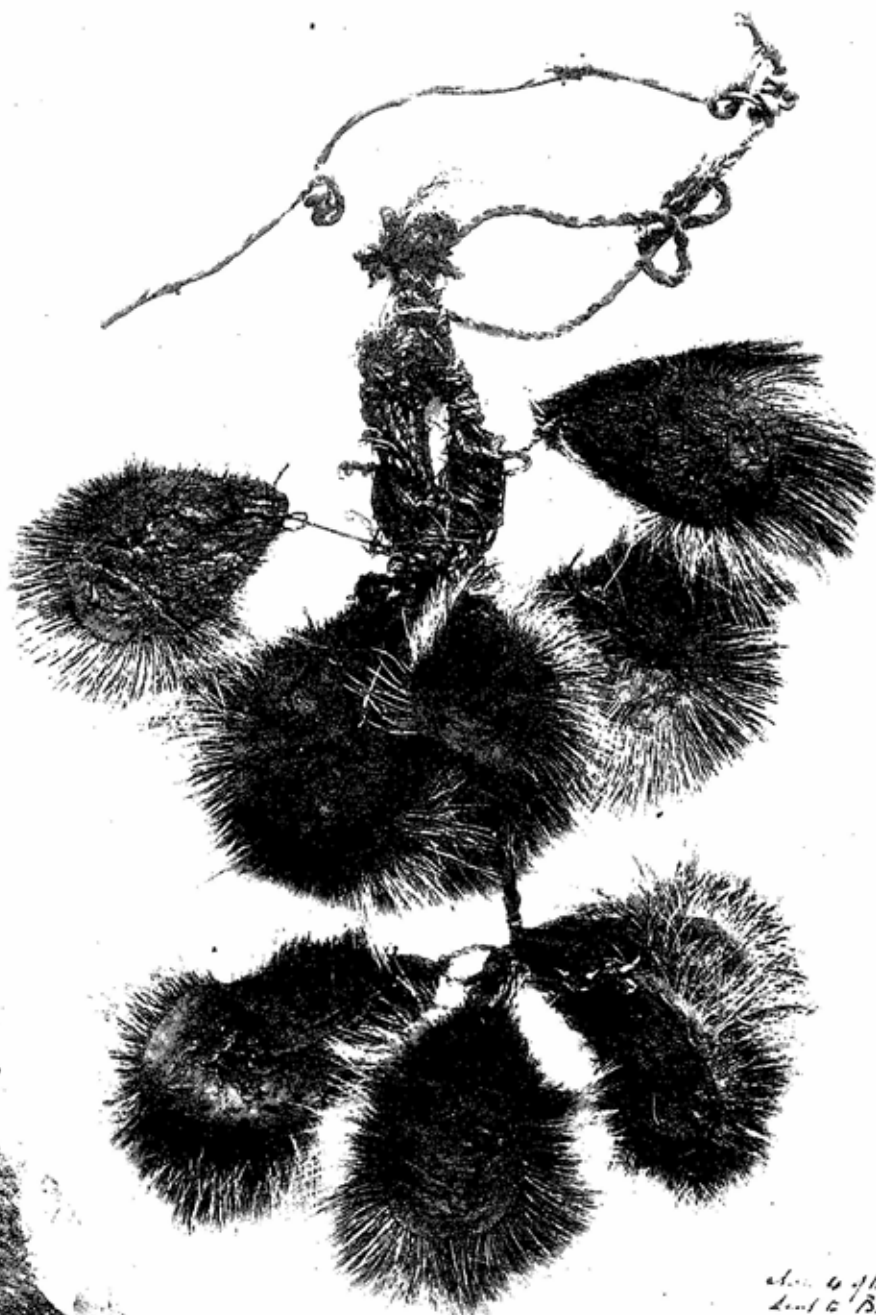
Text Book of Palæontology. By Karl A. von Zittel. English translation revised and enlarged. London: Macmillan, 1902. 9 x 6. Vol. II., pp. viii-283, with 373 woodcuts. Price 10s. net. **15**

As was noted at the time of the publication of Vol. I. (see *Journ. Anthr. Inst.*, XXIX., p. 331) this English version is something more than a mere translation. Every chapter has been revised and enlarged, with the help of a number of British and American experts, under the general editorship of Dr. C. R. Eastman of Harvard, and the result is a full and valuable book of reference arranged in systematic order.

The present volume, which includes *Pisces*, *Amphibia*, *Reptilia*, and *Aves*, naturally presents little which especially interests the anthropologist, but the level of usefulness attained in these sections raises great expectations of the *Mammalian* volume, which will conclude the whole work.

T. L.

CP-1000



about 10 of these objects
sent to B. M. and
1 to (missing)
15 for the set.

This curious ornament is made
this quartzite being sent from
North Bay, Luvuvu, by Dr.
W. C. C. 1899, on a basket under
pouch.

ORIGINAL ARTICLES.

Australia.

With Plate C.

Darbishire: Myres.

On an Ornament of Unknown Use and a Quartzite Knife from Moreton Bay, Queensland. Exhibited on behalf of R. D. Darbishire, **16**
F.S.A., Victoria Park, Manchester, at a Meeting of the Anthropological Institute on 29th April 1902; and described by J. L. Myres, M.A., F.S.A.

The curious object which is figured in the upper part of Plate C. was sent home in 1842 by Dr. McConnel from Moreton Bay, Queensland. It was sent enclosed in a basket-work pouch, together with the quartzite knife which is figured below it in the plate. In the same consignment came also two stone axes, one rude, the other polished; both showing traces of having been mounted with "gum" in some sort of hafting. The objects figured in Plate C. are now in the collection of Mr. R. D. Darbishire; the other "objects" mentioned in the MS. note on the plate are the stone axes above-mentioned, and certain other stone implements given to Mr. Darbishire by a friend who was pioneering in North Australia.

The quartzite knife needs little comment. Mr. Darbishire's North Australian pioneer informed him that the larger knives of his own series were definitely used for fighting, and the smaller ones as scrapers.

The other object consists of eight small seamless bags of skin, covered on one side with short bristly hair. They are attached by short cords to a rough loop of clustered cords, and apparently served as a pendant ornament of some kind. The bags, which are too small, too shrunken, and have been pressed too flat and hard, to be of any use as receptacles, seem to be simply the dried *scrota* of some animal. They have been submitted for examination to the Natural History Department of the British Museum; but no determination of the species was possible.

Nor is it possible at present to assign to them any purpose or meaning. As charms their use might easily be conjectured; as an article of use, the *scrotum* of a young goat is valued by the Greeks of Anatolia and the Levant, but merely as a purse or a tobacco pouch: this, however, is simply because it is seamless and not easy to obtain, and, so far as I know, without any further reason whatever.

Probably other examples of this kind of object exist in other collections, and it is in the hope of eliciting further information from such sources that the present preliminary note is being published.

JOHN L. MYRES.

Africa, East.

Hobley.

Notes concerning the Eldorobo of Mau, British East Africa. **17**
By C. W. Hobley, Assoc.M.I.C.E., Local Correspondent of the Anthropological Institute.

To the east of Nandi country, in the Mau Forest north-east of Mount Tinderet, live a tribe of so-called Eldorobo people, who, like other branches of their race, exist solely by hunting, and possess neither flocks nor herds, neither do they cultivate the soil.

By the Nandi they are called the Oggiek, and they call themselves the Omotik. They have intimate relations with the Eastern Nandi, and generally speak the Nandi language; in fact, numbers of the young Nandi men, for whom the free hunting life has a charm, leave their homes and go and settle among these people for some years, and probably marry Oggiek women. It is thus difficult to discover what is the true aboriginal type of the race. The representatives with whom I have come in contact had, however, redder complexions than the majority of the Nandi, and had very peculiar eyes, which reminded one somewhat of the Mongolian type. In height they averaged 5 feet 8 inches to 5 feet 10 inches.

Their marriage customs are very simple: the suitor merely presents the father of the girl with some beer made from the sap of the "mkindu," or wild date palm, and a few monkey-skin cloaks, or "karosses," and takes away his bride.

They are said to be very prolific, having families of eight to ten children, but the infant mortality is so extremely heavy that their numbers increase very slowly; this mortality is probably due to the cold, damp climate of the Mau Forests, which are at an altitude ranging from 7,000 to 9,000 feet.

Their peace ceremony consists of cutting off a dog's ears, and the contracting parties then spatter one another with the blood.

They live principally on Colobus and other monkeys, which they shoot in the forest. At certain seasons, however, they go and hunt big game on the plains, known as the Rangata Nyuki; they wait till the grass is dry, and then burn it to facilitate their hunting. They use poisoned arrows for big game, and unpoisoned ones for monkeys, &c. They train dogs to assist in their hunting, and are very keen to get young dogs for the purpose. They told me that they first gave the dog certain medicine, and the animal could then track game.

They are very clever elephant hunters, and informed me that when they came across an elephant they went off and bathed and scrubbed themselves very carefully to remove all trace of the human scent, and that they were then able to approach a sleeping elephant and spear it with a poisoned dart.

They are most expert in the use of a firestick. The fire is produced in the ordinary way by the friction of one stick spun round vertically in a depression in another piece of wood, which is held firm between the bare feet of the operator; the lower piece of wood appeared to be the juniper of Man.

A small vocabulary of their language is appended on the opposite page. They use the Nandi numerals.

The prefix "ki," and the suffixes "et," "it," and "ek," are, I think, brought in from the Nandi language, but most of the roots will be found to be quite distinct. Many of the tribe can only speak Nandi, and when collecting this vocabulary in many cases they appeared to have forgotten the Oggiek or Omotik word but gave the Nandi word, and had to consult among themselves and, as it were, hunt up the proper word. The language is thus evidently dropping into such disuse that it will probably become quite extinct in the near future.

C. W. HOBLEY.

Malay: Craniology.

Duckworth.

Note on a Skull labelled "Sœmang-Schädel ♂," "Bukit-Sapi," 18 Upper Perak, 1902; now in the Museum of the Royal College of Surgeons. By W. L. H. Duckworth, M.A.

The former owner of the skull was a member of the tribe of Penghulu Dakabo (?), of Goyal (i.e., "Mount") Sapi, about eight miles (*wegestunden*) from Kuala Kënëring in Upper Perak. The skull was that of an old man who had been buried between three and four years.

The grave was completely concealed in the underwood and surrounded by primeval forest, and Dr. Grubauer, who dug up the skull himself, says that he would have been quite unable to find it without the assistance of Penghulu Dakabo himself; in fact, the grave was still further concealed by a tree which had accidentally fallen across it, and which had to be moved before the tops of the "grave-posts" could be found. These latter consisted of a number of short posts planted in the ground diagonally, and leaning over the skeleton, so as to protect it from falling earth, the skeleton itself lying untouched beneath them.

The skull is a small one, with the mandible attached, and the sex claimed for it appears the correct one. The age of the individual must, again (as claimed), have been well advanced, as synostosis is observed in marked degree in the coronal and sagittal sutures. No teeth remain in their sockets, but seven accompany the skull. Signs of alveolar abscesses are seen in the upper jaw. The whole skull is stained as though by

VOCABULARY OF ELDOROBO, OGGIEK OR OMOTIK PEOPLE.

Arm	Kursto	Hunt	Sagas
Arrows	Kibosagas	Iron	Kagarek
Baboon	Konokchot	(To) Kill game	Kagome
Bad	Keleya	Knife	Weset
Beads	Olalariot	I know	Kanash
Beard	Ulmunyeit	I don't know	Kasue
Bee	Lotorichiek	Leg	Ndabit
Bird	Ulgwenyet	Leopard	Abelyetkain
Blood	Olodoit	Lion	Sombit
Bone	Korwet	Man (old)	Pamongo
Bow	Iangda	„ (young)	Drwaganek
Brother	Notubehe	Meat	Rerende
Brass wire	Sangoit	Mother	Engitogit
Buffalo	Kiborakiat	Month	Endagetit
Cap (made of skins)	Ngirait	Mtama (grain)	Kibengerek
Child (male)	Olaimuwaranet	Nails (finger or toe)	Silolenicho
Child (female)	Olakimenget	Nose	Kwangwangda
Clouds	Kabtilaget	Paa gazelle, <i>Neo-</i>	Kibkesegot
Cloth	Ngowitet	<i>tragus</i>	
Colobus monkey	Soiret	Penis	Munyiset
Come	Ichomon	Poison (for arrows)	Endamit
Cooking pot	Kiret	Rain	Oolorit
Cow	Koroswek	Rhinoceros	Kiptamet
Cowrie	Usegerik	River	Ilosto
Dog	Oghita	Say	Chonanguo
Ear	Uchoiet	Serval cat	Melilito
Earth (red, for paint)	Gwengenyot	Sheep	Eldurumet
Elephant	Emejoli	Sister	Simbarogonek
Eye	Lobtok	Snake	Tiandopsuswek (Sus- wek is Nandi word for grass)
Father	Tata	Spear	Kisuruet
Fingers	Mugungonek	Stick	Sikoniet
Fire	Emaitet	Stomach	Ngaiait
Firewood	Oyewiek	Stool	Olorigait
Foot	Endabisiek	Sun	Tongoiyet
Forest	Sameita	Supreme Being	Baba-tobiu
Giraffe	Tionganjeya	Sword or simé	Wesekto
Go	Ichomden	Teeth	Mumonek
Goat	Kibwaiyeinat	Tobacco	Kipsondit
Good	Singño	Tongue	Melsit
Grass	Seretiot	Tree	Kebkevet
Hand	Rubeito	Water	Pelen
Hair	Olusait	Wimbi (Eleusine grain)	Ngurumait
Hartebeest	Rogawiet	Woman (old)	Mureriat
Head	Nduguyait	„ (young)	Tivik
Hide (of an animal)	Ultetut	Zebra	Oloitigoit
Hill	Olkiwit		
Honey	Isiat		
House	Kortibwet		

some vegetable juice, which has imparted a yellowish tinge to the specimen. Vegetable fibres remain in the orbits, and in the foramina about the base of the skull.

As regards the general characteristics of this skull, it may be said at once that it does not present evidence of a low stage of evolution, and, indeed, in many respects it is as highly developed as many skulls of civilised Europeans. Evidence for a lowlier rank than these could only be demonstrated, if at all, by a very careful analysis of the morphological features of the specimen now in question.

The cranial portion of the skull is well filled and muscular ridges do not interrupt the uniformity of its contour. The individual cannot have been characterised by any great physical development. The brow-ridges are, however, quite distinct and impart much expression to the facial part of the skull. The skeleton of the nose is moderately prominent, and there is prognathism of the subnasal variety—i.e., the alveolar border of the upper jaw is prominent. The specimen may now be considered from the several *normæ* in order.

In *norma verticalis* the skull is of moderate length (though the index shows it to be brachycephalic) and obovate in form. The zygomatic arches are just concealed by the skull wall, and the specimen is, in consequence, just cryptozygous, but on the borderland of phenozygism. Synostosis has invaded the median parts of the coronal suture, and has almost obliterated the anterior three-quarters of the sagittal suture. Two parietal foramina are seen. Muscular ridges are, as have been mentioned, so feebly developed as to be hardly distinguishable.

In *norma lateralis* subnasal prognathism is seen. The naso-frontal depression is accentuated by prominent brow-ridges, above which the median sagittal curve of the skull rises abruptly, making the forehead appear high. The curve in question is continued without interruption to theinion, where there is a roughened area. The zygomatic arches are stout in proportion to the size of the skull, the mastoids being of moderate size. The sphenoid joins the parietal bone at each pterion.

In *norma facialis* there is seen a well-rounded transverse cranial arc; the face is wide, though absorption of the jaw accentuates this feature. The orbits appear of moderate height (though the index shows them to be micro-semic) with bevelled outer margins; the os planum of the ethmoid is of good height, and the lachrymo-ethmoidal suture of fair length (10 mm.). The lachrymal hamulus is absent from each side. The pars facialis of the infra-orbital suture persists on the left side. The nasal aperture is of moderate width, the nasal bones small and upturned, curiously like those of Australian aborigines; the lower nasal margins indistinct. The nasal spine is at the end of a ridge (lophacanthic type).

In *norma basilaris* a long hypsiloid palate is seen, the tubera maxillaria are small; no teeth remain in the alveoli, and these are in many instances obliterated, owing to absorption of the jaw. The glenoid fossæ are deep, the tympanic bone is not perforated and is of fair length, the styloid processes variable, the right being long, the left short. A pterygospinous ligament must have been present in life. The foramen magnum has no special features, being quite comparable to that of the normal European skull.

In *norma occipitalis* an approach to a pentagonal outline is seen; there are two or three Wormian bones in the lambdoid suture, and a remnant of the suture dividing the inter-parietal from the supra-occipital element of the occipital bone is seen. On a plane surface the skull rests on the alveolar margins of the jaw and on the tips of the mastoid processes.

The mandible has a prominent chin, an obtuse angle and shallow sigmoid notches. The teeth are well worn, decayed, but not apparently filed.

Judged by the indices, the skull is to be described as short, flat, and broad-faced, orthognathous, with flattened orbits and narrow nasal aperture. The last character, however, is not properly represented by the figure of the nasal index, which is unusually

low, owing to the remarkable position of the nasal spine. The skull is microcephalic as regards capacity.

It presents some remarkable resemblances to a cranium in the Cambridge Ethnological Museum, which I described in MAN (1902. 28): the shortness of the cranium and the general rotundity are alike in each, as is also the small figure of the cranial capacity. Where the Semang skull differs from the Andamanese skull just mentioned, it resembles a skull described by Turner as that of a Sakai, and figured in a communication to the Royal Society of Edinburgh (Vol. XL., Part I., No. 6). The Sakai skull agrees with the subject of the present account in the possession of prominent brow-ridges, and consequently flattened orbits, the nasal bones and aperture have similar characters in each.

MEASUREMENTS OF SKULL.		
CRANIAL PORTION :	FACIAL PORTION :	INDICES :
Maximum length - 167	Basi-nasal length - 96	Cephalic - - - 85
Maximum breadth - 132	Basi-alveolar length 96 +	Altitudinal - - - 82.6
Basi-bregmatic height - 128	Nasi-alveolar length 62 +	Alveolar - - - 100
Horizontal circumfer- ence - - - 482	Bi-zygomatic breadth 131	Facial (Kollmann's) 47.2
	Orbital height - - 34	Orbital - - - 82.9
	Orbital width - 41	Nasal - - - 44.8*
	Nasal height - - 48	
	Nasal width - - 21-5	
	Capacity:—two determina- tions gave 1,245 c.c. and 1,250 c.c. respectively; 1,245 c.c. is the more correct figure.	

But Turner's "Sakai" is dolichocephalic, so that the correspondence of type is not far-reaching. No very close resemblance can be traced between the Semang here described and the skull from Pahang described by Turner or the "Pangghan" described by Virchow (see comparisons in "Some Anthropological Results of the Skeat Expedition to the Malay Peninsula," *Journ. Anthr. Inst.*, Vol. XXXII., 1902, p. 142).

To sum up, then, this specimen of a Semang skull is to be regarded as an example of the short type of Negrito skull, which is thus shown to be variable in the essential characteristic of the relation of length to breadth. It still remains to be proved whether the long or the short skull is the original Negrito one, and at the present day there are seemingly to be found Negrito skulls in the Malay Peninsula, which by their form link up the long and the short extreme types.

W. L. H. DUCKWORTH.

Australia.

Christison: Edge-Partington.

Notes on the Weapons of the Dalleburra Tribe, Queensland, lately presented to the British Museum by Mr. Robert Christison. 19
Communicated by J. Edge-Partington.

Mr. Robert Christison, for many years a resident in Queensland, has lately presented to the British Museum a small but very interesting collection of weapons and other specimens collected by him from the natives of the Dalleburra tribe.

The chief camping ground of the tribe is round the water hole, Narkool, on Tower Hill Creek (lat. 20° S., long. 144° E.), the source of the Thomson river.

Mr. Christison is evidently a man of great observation and his notes are of considerable interest, and from them I have made the following extracts:—

The weapons of the Dalleburras are nearly all made of some kind of *gydia* wood, which is one of the hardest of Australian woods, and of a very close grain. It has also the peculiarity of having two distinct colours, yellow on the outside and a deep

* Falsified by great development of nasal spine.

nut-brown towards the centre. This they turn to artistic use, for in the manufacture of their mace-headed clubs (timmy-timmy) they choose a piece of wood of such a thickness that when carved will leave the head cut like a cameo in yellow, while the shaft is dark brown. These clubs are made in two sizes for single or double combat, and their heads are often whitened with a mixture of ground-talc and water which they call kadilla. The shafts are stained red with a mixture of red sandstone, the gum of the red-wood tree, and red clay or black with charcoal, after which they are polished by rubbing them with emu oil.

The species of gydia used for clubs are those known by the names of wooderry and tingoaricha (the hardest wood in the Mitchell district).

In the manufacture of their spears, a native chooses a suitable tree, either a parenya, or more especially a karrubulla (both specimens of gydia), whose branches spring high up on the trunk. He first makes a deep notch low down and another 15 to 20 feet higher up the trunk, according to the length of spear required. After a few blows on the surface a block is dislodged, from which the spears are split by means of wedges. The wood of the gydia is of a poisonous nature if a splinter is allowed to remain in the wound.

The wommera, which they call koolbinny, consists of a straight shaft of wooderry wood with a wooden peg attached to one end with kangaroo-tail sinews by means of holes pierced for the purpose and fixed by gum extracted from the beefwood tree (pandy) mixed with beeswax. The spear thrown by the wommera is formed of two pieces, the fore shaft is a reed to which is fixed a hollow stem of the grass tree obtained from the Mungooburras, a neighbouring tribe, in exchange for the hard wood of the gydia. This type of spear could be thrown, by means of the wommera, a distance of 300 yards, whereas the heavier wooden spear (moorecha) used in warfare was only thrown by hand, and then only accurately to a distance of 120 yards. Both types of spear were armed with barbs either cut from the solid or set with pieces of wood, fish bones, or the small bones of the kangaroo sharpened for the purpose and lashed on with kangaroo-tail sinews.

Their boomerangs are made of parenya wood and are of two distinct types. The one of lighter make, called a yarro-andy (to go and to return), and of more delicate curves, was used in warfare and for killing birds on the wing. This type, if it missed the object aimed at, returned to the thrower. This could be thrown a distance of over 400 yards. The other type was heavier, larger, and straighter, and was used for killing ground game, it was thrown straight at its prey, but not accurately beyond a distance of 100 yards. If it missed the object it did not return to the thrower.

In the manufacture of the boomerang, the most expert could never tell whether or not the one he was making would be successful or not, until it was carved in the rough and he frequently had to throw away one after another before he succeeded in developing the necessary curve; when this is obtained he continued working at it until nearly finished, when he tested it in the open. If the flight was unsatisfactory he heated the faulty part in the hot ashes to make it pliable; he then held it between his teeth while his hands gave it the necessary twist. This he continued until he was quite satisfied. The only tools used were a stone tomahawk and pieces of quartz.

The stones for these tomahawks were obtained from the Mungooburras of the Cape River ranges, as were also the pieces of quartz. From the latter stone they also made daggers (bibboo) by attaching a suitable piece, obtained by chipping, to a hilt of wood about 3 inches long with "pandy" gum; this they covered with a strip of kangaroo or opossum fur bound tightly round it, fastened with sinew or string made from the fibre of the yorring-er (native flax) or the bark of the kurrajong tree. These daggers were difficult to make and were kept entirely for warfare. In close conflict a black fought with a bibboo in each hand with a reserve one between his teeth.

Persia: Archæology.

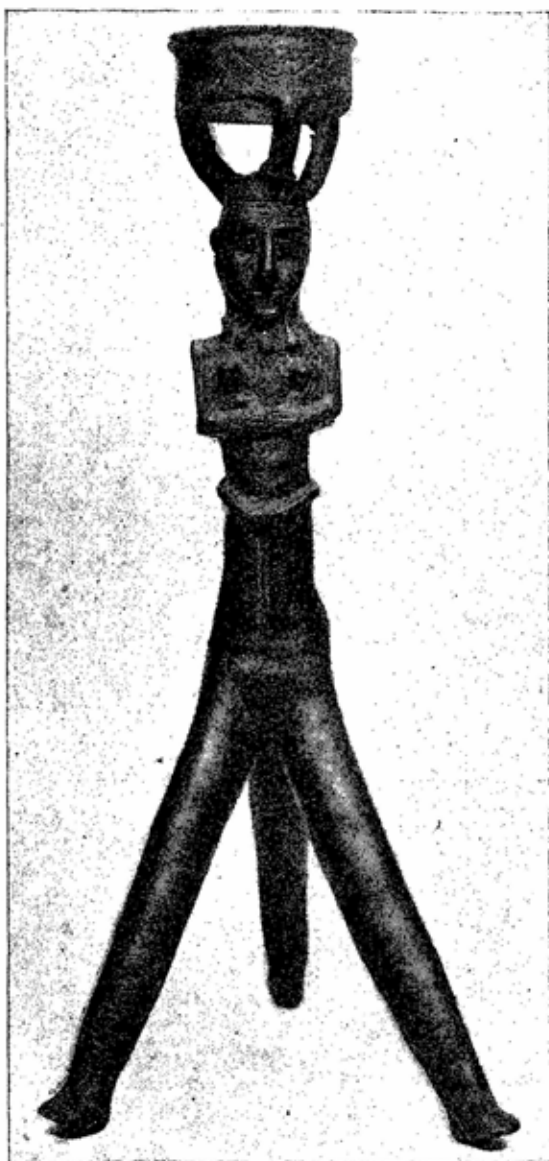
Myres.

An Archaic Bronze Tripod from Southern Persia. By John L. 20
Myres, M.A., F.S.A., Secretary of the Anthropological Institute.

This curious object is in the possession of Sir William Preece, who has kindly permitted its publication, and communicates the following details as to its history so far as it is known to him. Writing to Mr. C. H. Read, of the British Museum, shortly after its discovery, he communicates the following note from his brother, Mr. J. R. Preece, C.M.G., H.B.M. Consul-General at Ispahan:—"I have sent to Bushire " to be posted to you a bronze " statuette on three legs, about " 12 inches high—very curious. " It has had a circular crown " supported on the head by three " stems; this is broken off. You " will easily see where it comes." (In the photograph this upper part is replaced.) "In the centre, " right over the nose, is a winged " circle. On the breast are some " signs, which may be cuneiform " characters. The whole thing is " very archaic, and is something " about 2,500 to 3,000 years old, " I judge. It was dug up at a " place called Deh-i-Diz, between " Malamir and Godar-Bulatak " on the Ispahan-Shuster Road. " This place is a regular tumu- " lus, on which a village has been " built."

The substance of this note was communicated to the Anthropological Institute on June 10, 1902, and copies of the photograph appended were industriously distributed in the hope that they might catch the eye of someone more capable than myself of doing justice to the problem which it presents. But as no word of commentary has reached me as yet I think that it will be better to print even this brief note than to allow so curious an object to remain longer unpublished.

To the description furnished by Sir William Preece there is little to add. Attention should be drawn, however, to the following points:—Firstly, the technique of the detailed ornamentation may prove to be of importance. Its characteristic feature is the irregular rows of minute punctuations, with or without continuous border-lines round the punctuated areas. If this treatment were confined to representations of hair or fur,



ARCHAIC BRONZE TRIPOD FROM DEH-I-DIZ IN PERSIA.

as on the girdle ends, and below, or to what seem to be tattoo marks on the breast and below the arms, it would scarcely deserve remark; but as it is applied also to the pendants of the collar, and to the purely decorative motives on the head-dress and on the sides of the receptacle above, it would seem to be a true mark of style, and may, perhaps, serve to give a relative date; such punctuation belonging very commonly to an earlier phase of technique than the commoner and more expert method of batched lines.

Secondly, the objects which the hands of the figure are grasping are not very clearly defined; but they seem to be birds, and if so, confirm the impression conveyed by the general pose, that the type represented is some form of that ubiquitous dove or goose bearing goddess which has passed into archaeology under the conveniently inaccurate phrase of the "Persian Artemis." Such figures are found, as is well known, in almost every phase of symbolic art in the Nearer East, and the occurrence of this type gives practically no clue to date. The nudity of the figure, however, suggests that its makers had not yet passed under Mohammedan, Christian, or even any of the purer forms of Hellenistic culture.

Thirdly, the advanced modelling, and, one might almost say, the expressiveness of the face, inclines decidedly against all early dates. Nothing of the kind, for instance, is extant, so far as I know, even from Achæmenid times.

Provisionally, therefore, and in the hope at all events of eliciting a reasoned contradiction, I am inclined to assign the figure to a local school of modelling, reminiscent of the Bronze Age technique, influenced by a code of quasi-religious symbolism which is widespread both west and east of the Mesopotamia culture-area, but persistent, probably, in this case, after the collapse of the Achæmenid régime into the long period of chaos which fringes the Seleucid decline.

JOHN L. MYRES.

New Zealand.

Tregear: Edge-Partington.

Maori Scroll Patterns. By J. Edge-Partington.

21

Several notes on the above subject have appeared from time to time in the publications of the Anthropological Institute, with a view to arrive at the origin of the Maori scroll pattern (see *Journ. Anthr. Inst.* XXIX., p. 305; *id.* XXX., *Miscellanea*, Nos. 40 and 41; MAN, 1901. 55); and now Mr. Edward Tregear has contributed an interesting article to the June number of the *Journal of the Polynesian Society* (Vol. XI., p. 78)—of which society he is president—which, I think, throws some additional light upon this most interesting subject. "I am," he says, "strongly inclined to lean to Mr. Hamilton's opinion that the large spirals or *manaias* were derived from a lizard-form (Samoan, *manaia* = lizard); 'lizard' and 'snake' are such very convertible terms in myth and language. My only doubt arises from the fact that in the South Island the little marine fish known as the sea-horse (*hippocampus*: ordinary Maori name is *hiore-moana*) is called *manaia*. The hippocampus, dried, was often worn as an ornament by the natives, and sometimes was copied in bone or other material. Its head and curves, if highly conventionalised, might possibly resemble one of these snake forms, also called *manaias*."

Mr. Tregear is of opinion that the word *manaia* is of foreign origin; he says that an ornament or pendant in the shape of a fish-hook, called *matau*, "hook," was a very common neck-decoration of the old Maoris. The legend of the fishing up of the land by Maui is common both to Hawaii and New Zealand; and in Hawaii the name of Maui's great hook was *manaia-kalana*. In Hawaiian mythology *kalana* was the name given to Eden or Paradise, the home of the first parents, and to the father of Maui. He also says that *kalana* may be a compound word which can be dissected as follows: *ka* the definite article "the," or "of," "belonging to"; *lana*, "floating," "buoyant"; related to the Maori word *ranga*, "to raise" or "pull up."

In Hawaiian, *mana* means (1) supernatural power; (2) a branch or limb of a tree; (3) a kind of fish-hook. These two latter meanings evidently represent the Maori

manga. From this idea of a fork or branch has come the other meaning of a fish-hook. *Manaia* may therefore be made up of the two words *mana* and *ia*, the Hawaiian word for fish (Maori, *ika*), so that the translation of *manaia* is absolutely and literally "fish-hook." The full translation, therefore, of Maui's fish-hook is either "fish-hook of Taranga" or else "fish-hook of Raising-up," either of which is appropriate to the hauling up of the islands by Maui. "My impression is," he says, "that *manaia* is a Maori word, but that its meanings have come from two different localities—one (Samoan) 'lizard' or 'snake,' the other (Hawaiian) 'fish-hook.'" J. EDGE-PARTINGTON.

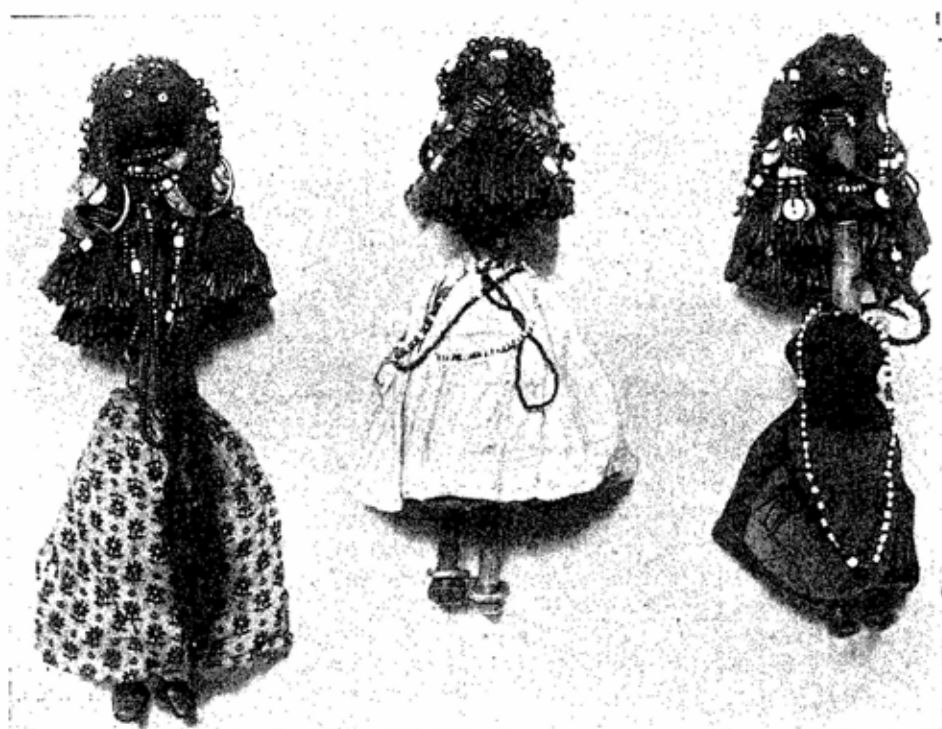
Egypt.

Gates.

Soudanese Dolls. By E. A. Gates; being a Description of Specimens exhibited at a Meeting of the Anthropological Institute, May 13, 1902.

22

These Soudanese dolls were obtained in Khartoum. Although I have never seen Soudanese children actually playing with such dolls, yet I have no doubt that the dolls were made for their satisfaction and not for the tourists; who, indeed, seldom, if ever, came across any specimen. The only other dolls which I have seen were some in the possession of a British officer at Khartoum, who had got them from the mother of one of his servants. The dolls shown in the photograph were obtained through a Greek merchant at Khartoum. Though made of Nile mud, native gum, and sticks, they are yet in many ways an accurate copy of the women of the country, especially in the matter of their hair and its adornment. The hair is carefully plaited, the number of plaits corresponding to the wealth and social status of the woman, and each plait is fixed by a lump of mud at the end, as the picture clearly shows. The decoration, however, is somewhat more profuse than is usually seen. The clothing, too, is not quite correct. The women, as a rule, wear a long piece of white calico round their bodies over a short apron of strips



SOUDANESE DOLLS

of leather, and a piece of coloured silk round the lower part of the abdomen. No doubt the dolls' costume owe something to the European women, who, as wives of the Greek merchants, are living in Khartoum and Omdurman; but the difficulties of adapting the correct clothing to a piece of stick with a lump of mud upon it to represent the hips has something to do with their dress.

E. A. GATES.

REVIEWS.

India.

Rose.

The Panjāb Census. Census of India, 1901, Vols. V., Va., Vb. By H. A. Rose. Simla, 1902. 34 × 22. Pp. 140, 387.

23

The report on the census of 1901 of the Panjāb and the North-West Frontier Province has been written by Mr. H. A. Rose, of the Indian Civil Service, and forms an interesting addition to the series of reports on this part of India, which commences with Mr. Ibbetson's memorable work in 1883. The newly-formed frontier province, which hitherto formed an integral part of the Panjāb, is still treated jointly with that province, so that a comparison with former results for the whole area dealt with is still possible.

Chapter III. dealing with religion, Chapter VI. with language, and Chapter VIII. with ethnography, are the most interesting parts of the report to anthropologists.

The classification of castes by social precedence, which has been adopted by Mr. Risley in Bengal and in the United Provinces (the North-West Provinces and Oudh of former reports) has not been adopted by Mr. Rose in the Panjāb, and he gives good grounds for holding that any attempt at such classification was doomed to failure (Chap. VIII., 45). It seems very doubtful, indeed, whether such an artificial system can lead to useful results anywhere. Mr. Rose has arranged the Panjāb castes in four groups, following respectively the types of organisation of the Khatri, the Rajput, the Jat, and the Bania. The Brahmans, Aroras, and Bhatias are grouped with the Khatri, the Baloches with the Rajputs, the Gujars with the Jats. The system is a tentative one, and it may be doubted whether it has any advantage over Mr. Ibbetson's classification by occupation, according to which the landowning and agricultural tribes were placed under one head, the mercantile and professional under another, and vagrants, menials, and artisans under another. Under this arrangement, the mercantile castes, the Bania, Khatri, Arora, Bhatia, and some minor groups, are placed together in what seems the natural and obvious manner, while the Brahmans take their natural place at the head of the professional castes.

No place is apparently found for the Pathans under Mr. Rose's system, and not a single section of the ethnographical chapter is devoted to them. The Baloches are rather awkwardly tacked on to the Rajputs, with whom they have little in common. Mr. Rose seems to think that the name Baloch is Indian (Chap. VIII., 29), as he remarks that it is equivalent to Baroch or chieftain. This can only be the Sindhi word Baroch, which is simply the Sindhi pronunciation of Baloch, *l* becoming *r* by a well-known rule in that language. The word Baloch was well-known in Persia in the ninth and tenth centuries, long before the Baloches had migrated to the Indian border.

The classification adopted cannot, therefore, be considered altogether satisfactory, and, for purposes of comparison, it would have been more convenient if Mr. Ibbetson's system had been adhered to. It may be noted that anthropometry is not even alluded to, and no attempt is made to arrange the races of the Panjāb by their physical characteristics. It is probable that sufficient material does not at present exist for any such arrangement; nevertheless, the physical distinctions are realities, and, when it becomes possible, should not be neglected. It does not by any means follow that any convenient or practical classification of castes must be abandoned, but they should be supplemented by one based on physical facts rather than on modern and artificial conditions. The

internal details in many castes have been well worked out by Mr. Rose. Special attention may be drawn to his remarks on the prevalence of hypergamy and the deductions to be drawn from it (Chap. VIII., 37, 38, 39).

The Khattris, Brahmans, Rajputs, Jats, and Banias are dealt with in considerable detail, and a great deal of new information is given regarding these castes. The great Pathan and Baloch races, which represent the latest wave of the immigration tide which has covered northern India with a population of so-called Aryan descent, are inadequately dealt with as noted above. These races afford an opportunity of observing the process of assimilation in actual progress, such as is hardly found among the Jats and Rajputs, whose settlement in India is of ancient date. With regard to the remarks in Chapter VIII., section 37, as to the origin of hypergamy, it may be noted that when tribes settled as a whole, they bring their women with them; early movements of nomadic tribes cannot be compared with those of adventurers from settled countries whose women do not follow their fortunes. Anyone who has witnessed the migration of a Powinda tribe of Ghilzais through the passes of the Sulaimans to the Indus valley will understand how a whole tribe can move. Settlers in India under such conditions would have been under no necessity of taking wives from the conquered races.

The chapter on religions contains some interesting details as to Muhammadan sects in the south-west of the Province. Attention may also be drawn to the account of the religion of the Gaddis, and of some of the Sikh sects.

The chapter on languages follows Dr. Grierson's classification, and a full list of dialects is given. It is to be regretted that the name Lahnda has been substituted for the generally recognised Western Panjābī. Lahudais properly the name of the character used in keeping accounts in some parts of the province, and is not the name of a language. Its use is equivalent to describing Hindī as Nāgarī, or Panjābī as Gurmukhī.

Dr. Grierson apparently objects to Western Panjābī as a title because the dialects of this language are more akin to Sindhī and Kashmīrī than to Panjābī. Nevertheless the broad fact remains that Eastern Panjābī is perfectly intelligible to a speaker of Western Panjābī, while Kashmīrī and Sindhī are absolutely unintelligible, and that while there is a distinct linguistic frontier between Western Panjābī and Sindhī to the south and Kashmīrī to the north, there is no such definite line between the languages of the East and West Panjāb. How, for instance, should the dialect of Jhang be classed? It is neither East nor West Panjābī, but a middle language, while that of Garh-Maharāja in the south of the district is distinctly West Panjābī (or Jatki, to follow the old name), although not so shown in the map facing page 278.

The numerous maps showing the distribution of the population according to caste religion, density, etc., are extremely useful and, as a rule, accurate. Attention may be drawn to a slip in the map facing page 137 (Jains and Buddhists), according to which the Buddhist population of Lahul and Spiti is described as Jain, and the Jains of the south-eastern districts become Buddhists.

One of the most remarkable features to be noted in the present census of the Panjāb is the large increase of the Muhammadan population and the comparatively stationary condition of the Hindūs. Mr. Rose seems to think that this is due to the more careful and thrifty nature of the Hindus, and the tendency to restrict population in times of dearth. It must be remembered, however, that the more purely Muhammadan west is also the most thinly inhabited part of the country, and suffered more from insecurity till recent times than the more thickly-peopled eastern and central districts, where the bulk of the Hindū and Sikh population is found, and, therefore, that a more rapid rate of increase was to be expected there.

Mr. Rose has written a report that is most interesting and suggestive in many directions, and has developed and extended our knowledge on numerous points which it

is impossible to notice here. The Panjāb has been fortunate in that the work of which the foundation was so thoroughly laid by Mr. Ibbetson has been so worthily carried on by Mr. MacLagan and Mr. Rose.

M. LONGWORTH DAMES.

Sweden.

Retzius: Fürst.

Anthropologia Suecica; Beiträge zur Anthropologie der Schweden. By Prof. Gustaf Retzius and Prof. Carl M. Fürst. Stockholm, 1902. 38 × 28. Pp. 301. **24**

Not very long ago I had to speak in no measured terms of admiration (MAN, 1901. 59.) of the splendid work of Gustaf Retzius on the historical craniology of his native country. And now he and Professor Carl Fürst, of Lund, have done another great service to our science, in presenting to the world an *Anthropologia Suecica*, in a very handsome folio with great luxury of type and margin, and a wealth and beauty of illustrative maps and diagrams rarely equalled; while for scope and minuteness of detail even Livi's great work does not come up to it.

The material was the conscription contingents of 1897 and 1898, the strength of which was about 45,000. In these the diseased and deformed are not included, nor yet the undersized; but these last are too few (about 2 per cent.) to materially affect the mean stature. Hultkrantz, who previously investigated the stature for the years 1887-94, and seems to have been able to include the entire male population of the age of twenty-one, found an average height of 169.51 centimetres, which, Retzius thinks, would imply a stature of about 170.5 centimetres (67.1 inches), on the completion of growth. And this average appears to have been rising for a good while past. Forssberg, dividing the upper from the lower class, found a difference of about 7 to 9 centimetres in favour of the former, which is somewhere about what Roberts and I found in England, or even a little more. Thirty-five upper class men, from twenty to twenty-five years of age, yielded an average of 179.1 centimetres, or 5 feet 10.5 inches, much greater than that of our University students, and about equal to my Galloway men, the tallest population hitherto verified in Europe.

The mean stature of Retzius's men was 170.88 centimetres. He has carefully and exactly worked this out for the several provinces; and his results would repay study. They vary between 172.7 for Gottland (the isle), and 169.1 for Lappland. On the whole the western and sub-northern provinces have the tallest men, the northern one the smallest. Race may be the chief cause in the northern, selective immigration in the sub-northern.

The body is comparatively long and the legs short in two areas: (1) Värmland, Västmanland, Dalsland; (2) Lappland, Västerbotten. The converse occurs in Skåne, Halland, Blekinge, Gottland, and Bohuslan.

Fürst, in fourteen corpses—of which, curiously for this eminently dolichocephalic country, eight belonged to brachys—found an average thickness of integument of 3.5 mm. at the glabella, 3.8 at the "nacken," and 4.5 in the temporal region. The head-average was 82.71, the skull-average, 80.88; the difference 1.13 degree, or in six dolichos 2.12, in two hyper-brachys 1.6. Retzius accordingly adopted the customary plan of subtracting two degrees from his indices. That for all Sweden is $77.855 - 2 = 75.855$. The mean index is highest in the three northern provinces (Lappland, 77.5), in the four southern (Skåne, 77), in the two islands, and in Hälsingland and Uppland. The cause of this elevation is racial in most or all cases: in Uppland, Walloon colonists worked the Dannemora mines; in Hälsingland, Finns are perhaps responsible. The stature and headform percentage-curves for several provinces yield indications of admixture, but these coincide distinctly only in Halland, Blekinge, and Uppland with those for stature.

The mean index is lowest, on the other hand, in the central western provinces, including Jämtland; and in Södermanland and Dalsland it actually falls below 75.

The average length and breadth of head are 192·9 and 151·0, and nearly coincide, as does the cephalic index, with those met with in most parts of the British Isles. The combination of tall stature, blond coloration, and long head, is strongest in the west along the Norwegian frontier, overspreading the centre and reaching the Baltic in Södermanland. The short short-headed people (neglecting colour) are found most often in the four southern provinces, in the three northern (including Angermanland) and in Uppland and Stockholm. That city has the smallest heads (191·3–149·6), Dalecarlia, or Dalecarlia as we call it, has the longest (194·7–150·2), and Västerbotten has the broadest (192·6–153·7), owing to the admixture of Finnish and Lappish blood. After Västerbotten, Uppland has the greatest proportion of brachycephals (21), and Dalsland and Södermanland the least (4·8 and 5·0 respectively); the figures for all Sweden

	DOLICHO.	MESO.	BRACHY.
being - - - - -	30	57	13
and those of Venn for English students	23	62·5	14·5

Fürst, in classifying his chromatic results, has used my division of the hair into red, fair (*gelb*), brown (*cendré*), dark (*braun*), and black. He places the red after the black, which I consider inconvenient, especially as he himself shows that the red, in Sweden at least, almost all belong to the fair type, and as, in his summaries, he sometimes amalgamates them with the blond. The eyes he divides, much as Topinard does, into four classes, blue, grey, *melirt*, and brown; but he often throws his *gelb* and *cendré* classes together as *blond*, and his blue and grey together as *hell*. From internal evidence I should say that the personal equations of the actual observers did not vary very much, and that they coincided nearly with my own and with those of many English anthropologists, rather than with those of most Frenchmen or Italians. This was to be expected. But when he throws together his *gelb* and *cendré* (which latter I take to be my "brown," the *moyen* of Topinard, the *hellbraun* of the Germans), uniting also, as I do, the blue and the grey, he constitutes a very wide blond class, very much wider than Virchow's.

His results are very interesting. This blond (*hell*) type comprises half, or more than half, of the men in the whole of southern and western Sweden, *i.e.*, in all the more populous districts up to Jämtland; in Lappland and in the five coastal provinces north of Uppland it is much weaker: in the whole country it is 54·4 per cent.

His *hellgemischter* or lighter mixed type consists of two categories: one with dark or, more often, *melirt* eyes and light hair, which, as he well remarks, is apt to lose its blond aspect with age; the other with light eyes and dark hair. The former abounds most in the seven southernmost provinces, in Öland, and Dalecarlia; in Blekinge, which is credited with female beauty of this type, it embraces 25·7 per cent, and in Bohuslan 27·5 per cent. The converse, with light (often grey) eyes and dark hair, is uncommon in the seven southern provinces, in Dalecarlia, Västmanland, and Öland, and is in moderate strength in a central belt of five provinces; but it abounds in all the eight provinces north of Uppland and Dalecarlia, attaining or approaching 20 in all of them. Its range is from 6·1 in Westgothland to 28·1 in Hälsingland.

The *dunkel* and *dunkelgemischt* type (neutral or dark eyes with dark hair), has nearly the same domain as the last, but includes Eastgothland instead of Värmland and Dalsland. It is strong in the north and north-west, and its frequency ranges from 26·3 per cent. in Lappland down to 7·3 in Westgothland.

My index of nigrescence (Dark Brown Hair + twice Black — Fair — Red) applies itself extremely well to Professor Fürst's data. One may divide Sweden into three compact blocks. In the first or south-western the indices are all minus quantities, and the average index is — 12·8. These provinces are Skåne, Smöland, Halland, Blekinge, Westgothland, Bohuslan, Dalsland, Värmland, Västmanland, Dalecarlia, with the Isle of Öland. In the east central block are Närke, Stockholm, Eastgothland, Södermanland, Uppland, with Gottland; their indices range from 0 to + 18 (Stockholm), and their

average is +6.14. The north-eastern block contains the eight remaining provinces: the index ranges from +18.7 (Jämtland) to +38.8 (Hälsingland), and averages +30.8. Except as regards the place of the Isle of Gottland, Professor Fürst's map of his dark and mixed dark type would serve equally well for my index. The colour index of Topinard, which takes account of eyes as well as of hair, would, of course, indicate for all parts of Sweden a great preponderance on the light side. My own composite index (Dark Brown + 2 Black — Fair — Red + Dark Eyes — Light Eyes) does the same, varying from -17.1 (Västerbotten) to -92.4 (Dalecarlia). Professor Fürst himself has struck out a method of estimating the blond and the dark elements in the people of the several provinces, which is arranged on somewhat similar principles to mine, as he values black hair at twice the potency of dark brown hair, and brown eyes at twice that of *melirt*, i.e., neutral or *moyen* eyes.

I append my own two indices of nigrescence and Professor Fürst's ideas of the potency of the fair and dark elements:—

In my opinion the last three columns of the adjoining table allow somewhat too much importance to the colour of the eyes as compared with that of the hair. And Professor Fürst seems to be of the same opinion. Probably a still better pigment-index could be framed, in which the eye-colour, though not neglected, should count for not more than half the weight of the hair. A summation or an average of my two would have precisely that effect. The mark-worthy blondness of the Dalecarlians can hardly be otherwise than correct: the observer was Retzius himself. And of all the western provinces I should suppose Dalarne to be the most secluded and the least liable to foreign immigration. Yet *melirt*, mixed, neutral eyes, hazel-grey or the like, abound there, often with yellow hair, in the very focus of Scandinavian blondism. No doubt the typical blond should be blue-eyed, but I have always doubted whether this kind of eye were in itself a clear indication of the admixture of a darker race.

Here I would like again to draw attention to the

District.	BEDDOE.		FÜRST.	
	Indices of Nigrescence.		Blond Element.	Dark Element.
	Simple.	Compound.		
Skåne - -	-16	-76.2	85.5	14.5*
Halland - -	- 7.1	-64.4	85.2	14.8*
Smöland - -	- 9.6	-72	86.6	13.4
Blekinge - -	-10.6	-66.7	84.2	15.8
Öland - -	- 8.8	-67.1	86	14
Gottland - -	+10.3	-60.7	85.9	14.1†
Bohuslan - -	- 7.2	-66.1	86.1	13.9
Dalsland - -	-13.3	-83.8	87.6	12.4
Västergötland -	-14.9	-78.4	87.5	12.5
Östergötland -	+ 2.1	-51.6	82.8	17.2
Värmland - -	- 2.3	-68.5	85.5	14.5
Märke - -	+12.8	-52.9	83.8	16.2
Södermanland -	+ 9.2	-58.9	85.9	14.1
Västmanland -	-17	-84.2	87	13
Stockholm - -	+17.9	-44.1	81.9	18.1
Uppland - -	+ 1.6	-63.9	85.7	14.3‡
Dalarne - -	-30.5	-92.4	85.7	14.3
Gästrikland - -	+33.1	-38.8	79.5	20.5
Hälsingland - -	+38.8	-25.2	78.1	21.9§
Medelpad - -	+26.8	-35.3	80.1	19.9
Jämtland - -	+18.7	-57.5	85.1	14.9
Härjedalen - -	+25.9	-67.7	84	16
Angermanland -	+29.6	-33.8	80	20
Västerbotten -	+38.7	-17.1	76.7	23.3¶
Lappland - -	+33.9	-18.8	76.6	23.4**
SWEDEN - -	- 2.4	-64.6	84.8	15.2

* Old Danish connexion. † Mediæval civilisation. ‡ Walloons. § Finns (?)
|| Infiltration of Norwegians (?) ¶ Finns and Lapps. ** Lapp blood.

curious facts that while the distribution of eye-colour is not conspicuously unequal (though the preponderance of light eyes is somewhat less marked in the south and in Lappland), the discrepancies as to hair-colour are as notable as Vanderkindere showed them to be in Belgium. Every one of the eight northern provinces has more dark hair than any one of the seventeen southern and central ones. The contrast to the ordinary rule of Europe, that the hair darkens to the southward and westward, is very striking, and is worthy of the consideration of those who champion the influence of media on type.

Of the many other curious points brought out in this valuable book I may mention these, that length of head is found to be correlated in Sweden with tallness of stature, but that no such connection can be found between stature and colour.

JOHN BEDDOE.

Africa, South.

Blue Book.

Southern Rhodesia. Correspondence relating to the Regulation and Supply of Labour in Southern Rhodesia. Presented to both Houses of Parliament, July, 1902.

25

This Blue Book, issued last autumn, illustrates the difficulties which beset the administration of all our South African possessions in educating the Bantu people to labour. The idleness consequent on the abolition of inter-tribal warfare is a great and serious danger. The natives have no natural inclination or ability for continuous work. Direct compulsion is abhorrent to public opinion in this country. At the same time, not a single effective step in the elevation of the race from the lower barbarism can be taken without the training of the youth to industry. On the other hand, labour is greatly needed in the mines, and in that climate a good deal of such labour is almost of necessity performed not by Europeans, but by natives. In these circumstances it is not to be wondered at that the line between direct and indirect compulsion, between inducement and force or threats should sometimes be hard to draw. The Colonial Office is, it is satisfactory to know, very properly on the alert, and is using every effort to prevent anything which approaches a semblance of oppression.

To anthropologists the most interesting part of the correspondence here brought together is the evidence of the variations in the custom of *lobola*, or payment for wives, and of its gradual abandonment. It appears from a report by Mr. Taberer, Chief Native Commissioner in Mashonaland, that the raids of the Matabele and other powerful tribes have never permitted the Mashona to grow rich in cattle. Consequently, few men are possessed of sufficient cattle at one time to pay for a wife. Hence has arisen the custom of bespeaking a girl as soon as she is born, and paying the *m'lobolo* by instalments as she grows up. In this way, by the time she has become marriageable, the entire payment has been made. But, meanwhile, she has made her own choice of a lover, and very often refuses to wed the man to whom her father has betrothed her, running away instead to the youth for whom she has formed an attachment. If he be able to repay the cattle which her father has received for her, well and good; the matter may be arranged. But this is rare; the result is more likely to be a quarrel, the employment of force, and crime. About 95 per cent. of the disputes and claims brought before the Native Commissioner are said to arise out of this custom.

It is to be noted, also, that the Mashona do not look upon the cattle-paid *m'lobolo* as a trust, as some tribes do. This probably arises, like the custom of payment by instalments extending over a long period, from the liability to impoverishment by raids. Other details referred to by Mr. Taberer as practised are "the interchange of girls" (what he means by this is not clear), "the replacement of a deceased girl by her sister against the latter's will, the continuance by the heir of the payment of *m'lobolo*, which a deceased

"man have not completed, and his subsequent claim to the girl in question." He calls these "abuses" of the custom. It is, perhaps, not worth while to quarrel about a word; but there can be little doubt that they are, so far from being abuses in the strict sense of the word, really no more than ordinary logical results of the native ideas.

In Matabeleland the larger part of the Matabele people have abandoned *lobola*, to the great injury of the morals of the tribe. The scarcity of cattle is the cause to which this is attributed by Mr. Taylor, the Chief Native Commissioner. His testimony to the value of *lobola* is unqualified, and he even goes the length of advocating legislation with a view to preserve it. Among those Matabele who observe the custom, the Mukalanga and a few other subordinate tribes alone observe it in its entirety. As they have hardly any cattle, at all events since the rinderpest, they barter for their wives by means of goats, sheep, blankets, beads, armlets, karosses, and so forth. The practice of infant betrothals obtains in certain districts, as among the Mashona.

E. SIDNEY HARTLAND.

Tibet.

Das.

A Journey to Lhasa and Central Tibet. By Sarat Chandra Das, C.I.E.
 Edited by the Hon. W. W. Rockhill. London: Murray, 1902. 22 x 15. Pp. xiv
 + 285. With two maps and plans. 10s. 6d. net.

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A Journey to Lhasa and Central Tibet, an extra publication of the Royal Geographical Society, fully maintains the high standard of excellence previously attained by the publications of that Society, both in "get up" and in the importance of its subject-matter. Some considerable time has now elapsed since anyone qualified to give an adequate or trustworthy account has visited the city of Lhasa. Sarat Chandra Das is a member of the Educational Department of India, and the author of numerous papers dealing with the religion and history of Tibet. His first journey to Tibet was undertaken in 1879; an account of this journey was printed on his return. In 1881 Sarat Chandra set out again for Tibet, accompanied as on the previous occasion by the lama Ugyen-gyatso. His stay in Tibet on this occasion lasted over a period of fourteen months, the greater part of which was spent at Tashilhunpo. After some difficulty he succeeded in reaching Lhasa, where he stayed for a short time. While there he attended a memorial service conducted by the Dalai Lama, the head of Tibetan Buddhism, whom he describes as "a child of eight with a bright and fair complexion and rosy cheeks." On his return to Tashilhunpo, where he was living with the Prime Minister, he witnessed the funeral of the Grand Lama, who died at this time. The report of his journey was printed in two volumes entitled, respectively, *Narrative of a Journey to Lhasa* and *Narrative of a Journey round Lake Palti and in Lhokha, Yarlung, and Sukya*. These reports were kept strictly confidential by the Government until about 1890, when selections from them were first published. The reports are now published with slight modifications in the present volume. The greater part of the book is written in the form of a diary, embodying many interesting observations made from day to day, but special chapters are devoted to social institutions and religion. Some of the information contained in these chapters will be found in the works of Huc, Waddell, and others, but on the whole they form a most valuable contribution to our knowledge of Tibet. The editing of the book has been entrusted to the Hon. W. W. Rockhill, whose knowledge of Tibet has well qualified him to undertake the task.

The footnotes which have been added by the editor, supplementing or correcting the information of the author, add greatly to the value of what is undoubtedly one of the most important books published of late years on this country. E. N. FALLAIZE.



NORMA LATERALIS.



NORMA FACIALIS.



NORMA VERTICALIS: INTERIOR.

CORNELIUS MAGRATH, THE IRISH GIANT.

ORIGINAL ARTICLES.

Phys: Anthropology. With Plate D. Cunningham.

Cornelius Magrath, the Irish Giant: *Abstract of a Paper read at the* 27
Belfast Meeting of the British Association for the Advancement of Science,
September 11, 1902, by Professor D. J. Cunningham, M.D., F.R.S. (cf. MAN, 1902. 112.)

For close on a century and a half the skeleton of Cornelius Magrath has been a treasured possession of Trinity College, Dublin. It is questionable if any museum specimen in Ireland is better known or has excited a wider interest, and yet it is strange that in the notices of the skeleton in anthropological and other books the measurements which are given are far from accurate. The skeleton stands 7 ft. 2½ in. high; but there is good reason to believe that during life the stature of Magrath was considerably greater. There is only one trustworthy record extant of measurements taken by a competent observer during Magrath's life. In 1757 Magrath was in Florence and Dr. Bianchi, an Italian physician, measured him and wrote a letter to a friend concerning him. He gives his stature as being 7 ft. 5 in.

A few particulars regarding Magrath's life may not be uninteresting. He was more or less of a public character, and the journals of the period contain many references to him. He was born in Silvermines, co. Tipperary, in 1736. In boyhood he grew so rapidly that at the age of sixteen he attained the height of 6 ft. 9 in. About this time he went to Cork and was engaged for exhibition purposes. We next hear of him in London, and from thence he was taken to Paris and all the more important cities on the Continent. Two months before his death he returned to Ireland in miserable health, and he died in Dublin in 1760. Many sensational stories are afloat as to how his remains were obtained by the authorities of Trinity College; but as an obituary notice appeared in two of the Dublin journals in which it is openly stated that "his body was carried to the dissecting-room in the College, where his skeleton, on account of its extraordinary size, will amuse the curious and fill posterity with wonder," and further, "that on Monday a lecture was read on the dissection of our tall Hibernian in the Anatomy House before a numerous audience," it is perfectly clear that there was nothing surreptitious in the transaction.

In 1759 an engraving of Magrath was published in Germany. In this he is represented as being a well-built, well-proportioned, straight-limbed man. His features are pleasing and regular, and he is attired in the fashionable dress of the period. The portrait, however, cannot be considered as conveying any true idea of the appearance presented by Magrath during life, because the condition of the skull shows that he must have possessed a most repulsive face, and that he was in all probability partially blind. Further, his limb-bones indicate in the clearest manner that he was afflicted with the condition known as "knock-knee."

The true interest attached to the skeleton of Magrath consists in the fact that it exhibits in a marked degree all the conditions of an advanced phase of a disease called acromegaly—a morbid condition which was only recognised sixteen years ago.

The leading features of this disease are: (1) excessive development of the lower jaw; (2) excessive growth of the hands and feet; (3) great expansion of the chest; and (4) a marked hypertrophy of the anterior lobe of the pituitary body. In Magrath the size of the lower jaw is very remarkable; the lower dental arch projects considerably beyond the upper arch. The size of the hands and feet in the skeleton are not so disproportionately large, although in certain of the notices which were written at the time he lived, special reference is made to their great development. Thus it is said that "his hands were like middling shoulders of mutton," and that the last of his shoe which he carried about with him was 15 in. long. One of the most striking features of the skeleton is the enormous expansion of the pituitary fossa in the floor of the cranium, showing that the pituitary body during life was greatly hypertrophied.

At the time when I described the skeleton of Magrath* and pointed out its acromegalic features, I was well aware of the fact that Langer in his memoir upon giants had remarked that in the majority of giants the pituitary body is enlarged; and further, that the lower jaw as a rule shows excessive growth; and having obtained permission to examine the skeleton of the Irish giant, Charles Byrne, in the College of Surgeons, London, I came to the conclusion that there must be some connection between acromegaly and giantism.

Almost immediately after the publication of my paper, other cases began to be recorded of giants who exhibited the characters of acromegaly in the pituitary region, in the lower jaw, and in the chest; while only in 1901 Dr. Woods Hutchinson published a most interesting and able memoir, in which he discusses the whole subject and gives particulars of thirteen giants who presented acromegalic features.

Passing under review all that we know on the subject at the present moment, I think we are justified in putting forward the following conclusions:—

1. In giants the cranium and the trunk remain tolerably close to the normal standard; the excess of growth is chiefly confined to the face and the limbs.

2. In acromegalic people the excess of growth in the limbs is confined to the terminal segments, viz., the hands and feet; in giants, as Woods Hutchinson has pointed out, the excess of growth is seen throughout the entire length of the upper and lower limbs, although in many cases (*e.g.*, Magrath) the disproportion is most marked in the terminal segments.

3. Both acromegaly and giantism appear to owe their origin to an excessive development of the pituitary body. This structure seems to be endowed with some obscure growth-regulating function, so that hypertrophy of its anterior lobe results in giantism or acromegaly.

4. Both giantism and acromegaly are morbid processes, and, according to Woods Hutchinson, the difference appears to be due to the period in life at which the disease begins. If it appears in early youth before the long bones have become consolidated giantism results; if it occurs later in life the growth excess is more partial and acromegaly results.

5. Woods Hutchinson argues that the fact of giantism being a morbid process is still further suggested by the feebleness shown by those overgrown specimens of mankind and also by their short duration of life.

D. J. CUNNINGHAM.

Ægean: Script.

Evans.

Pre-Phœnician Writing in Crete, and its Bearings on the History of the Alphabet. *An Abstract of three Lectures by Arthur J. Evans, LL.D., Litt.D., F.R.S., Keeper of the Ashmolean Museum, Oxford.* **28**

The summary which follows is an abstract of a course of three lectures delivered at the Royal Institution of Great Britain, on January 15th, 22nd, and 29th, 1903. The lectures themselves were fully illustrated, and a detailed account of the discoveries which they describe is in preparation.

I.—PRIMITIVE PICTURE-WRITING AND THE CRETAN PICTOGRAPHIC SCRIPT.

Articulate language is a somewhat late development with the human race. Everything tends to show that geologically speaking the appearance of MAN on the American continent is comparatively recent. A widespread ethnic similarity is there visible among the aborigines. But what common stock of language did the immigrants bring with them? It has been observed that the number of known stocks or families of Indian languages within the United States alone amounts to sixty-five, and these differ among themselves as radically as each differs from Hebrew, Chinese, or English (G. Mallory,

* "The Skeleton of Cornelius Magrath," *Trans. Roy. Irish Acad.*, Vol. XXIX., Part XVI. 1891.

Annual Report of the Bureau of Ethnology, 1879-80, p. 312). But if we take the same area, and examine the character of the two earlier vehicles of human intercourse—*gesture-language*, and *picture-writing* which was largely influenced by it—we find many common elements extending from one end of the continent to the other.

Man drew before he talked. The very dearth of oral tradition gave a greater value to pictorial records. Already, in the Reindeer Period, we see the rude hunter, mother-naked, whose equipment of articulate speech was probably only of the most rudimentary kind, leaving excellent designs, in relief or in outline, on bone and stone, of the wild horses, deer, and other animals that he stalked or trapped. Among savage races at the present day, more or less developed systems of pictographic record are universal. The very ancient gesture-language and sign-communication blends with these, and may even be said to supply at times, to the pictorial figures the moods and tenses of grammatical expression. Illustrations of this blending of gesture-language and picture-writing, and also of the tendency of picture-writing to become abbreviated into a linear shorthand, are supplied by the representations of gesticulating men in the Californian rock paintings of Tule River and Santa Barbara county.

Evidences of similar pictography in primitive Europe are supplied by the troll-drums of Lapland; in Scandinavia by the rock paintings, such as those of Eohuslän, or the Kivik tombstone; in Ireland by the incised stones of New Grange; in Brittany by the dolmen of Locmariaker; in Spain by the representations at Fuencaliente in Andalusia; in the Maritime Alps by those of the Maraviglie and Val Fontanalba (subscribed by Mr. C. Bicknell); in the Adriatic by some observed by the lecturer in the Bocche de Cattaro, and by similar representations in North Africa.

Reference has already been made to the tendency of picture-writing to concentrate its pictures into symbols, and to substitute a part for the whole. Eventually systematic selection of pictography to represent words, and even syllables, led to the growth of conventional systems of writing. Examples of this process are the picture-writings of Central America and China.

In the Nearer East the process was the same. In Egypt the discoveries of Petrie and others have revealed in pre-dynastic and proto-dynastic times, the less formalised beginnings of the later conventional "hieroglyphics." In Babylonia, early monuments like those in Tello disclose many pictorial originals of what afterwards became "cuneiform" symbols. And in the so-called "Hittite" script of North Syria and Asia Minor we have an instance of a pictographic script whose symbols—whatever their significance—retained at least a pictorial aspect throughout.

There was, therefore, an *à priori* probability that in Greece also an early picture-writing might be expected to have existed: the discoveries of Schliemann revealed so high a type of civilisation in the prehistoric Ægean, that if writing had proved to be unknown it would have been its absence which would have called for explanation, and, in fact, it was not long before isolated specimens of script were actually discovered by Tsountas, scratched on vase handles from Mycenæ.

Nevertheless, in 1894, M. Perrot felt justified in summing up as follows (*Histoire de l'Art dans l'Antiquité*, vi. (Eng. Tr.)) :—"The first characteristic which attracts the historian's notice when he tries to define pre-Homeric civilisation, is that it is a stranger to the use of writing. It knows neither the ideographic signs possessed by Egypt and Chaldaea, nor the alphabet, properly so called, which Greece was afterwards to borrow from Phœnicia." He admitted, indeed, that some of the marks recently noted on the vase handles bore resemblance to letters, but observes that they do not seem to form words, and that they are perhaps nothing more than the marks of the potter or of the owner; or ignorant copies of Phœnician or Asianic characters. "As at present advised," he concludes, "we can continue to affirm that for the whole of this period neither in Peloponnese nor in Greece proper—no more on the

"buildings than on the thousand and one objects of luxury or domestic use that have come out of the tombs—has anything been discovered which resembles any kind of writing."

To the lecturer himself, on the other hand, it seemed incredible that a civilisation which laid both Egypt and Babylonia under such heavy contribution, and gave so much in return, as an equal rather than as a dependent, could in the department of writing, have been below the stage attained by Red Indians. If analogy were any guide, the commoner vehicles of writing in the *Ægean* would be as perishable materials as elsewhere; and tradition pointed here, too, to the early use of palm-leaves, lime-bark, and similar vegetable surfaces, as substitutes for the papyrus of Egypt. Considerations of this kind, however, provided negative evidence only; the problem was, what data could be discovered to establish a positive conclusion.

Such data seemed to be provided by a four-sided seal-stone brought back from Greece by Greville Chester and acquired by the Ashmolean Museum, which, though at the time attributed to Sparta, has since been traced back to a Cretan origin. The symbols with which this stone was engraved were so grouped as to suggest a pictographic script analogous to the "Hittite" system of writing; and the discovery of similar stones in Crete in 1893 confirmed the suspicion that the designs on this class of seals were symbolic, and their grouping intentional. In a series of journeys through Crete in 1894 and subsequent years, Mr. Evans discovered a large number of similar seal-stones, which he described in the *Journal of Hellenic Studies*. It became clear from the first that two forms of writing were in use in Crete collaterally, the one "pictorial," the other "linear"; all uncertainty as to the significance of the latter class of signs being dispelled by the occurrence of a regular inscription on a table of offerings found in the Dictæan cave in 1896. These pictographic seal-stones show a definite method in the grouping of their symbols. They follow a regular system of arrangement, which is sometimes *boustrophedon* as in many of the earliest Greek inscriptions. Further, the pictorial signs are not mere ornaments chosen at haphazard, but are selected from a limited cycle of symbols; and some of them represent, in graphic form, abbreviations of a gesture-language.

By the year 1895, in fact, it was possible to conclude not only that the engraving of the Cretan seal-stones shows all the characteristics of a system of writing, but even that the script was of the nature of a syllabary. The suggestion that the seal-stones were simply talismans, with religious symbols, did not seem adequate to explain the data; and all doubts were finally dispelled in 1900 by the discovery—in the course of excavation on the very site at Knossos where Stillman had noted incised symbols on prehistoric masonry—of whole hoards of documents, some of considerable length, inscribed on clay tablets, both in the linear and in the pictographic style.

A preliminary survey of the large mass of data now available establishes the independent and indigenous character of the Cretan script. An early class of the seal-stones shows more purely pictorial forms than the later examples, and shows also indications of contact with the art of the XII. Dynasty of Egypt. A still earlier class shows a ruder style of engraving with greater resemblance to primitive drawings such as those of a child on a slate; and also a characteristic prismatic form—three sided, with the edges somewhat rounded—which recalls that of the Karnak prism, and fits on to that of the cylinder-seals of the early dynasties of Egypt. Another class, of button-shaped seals, with perforated shank, seems also to have originated from an early Nilotic—possibly a Libyan type. The Cretan script also presents close analogies, in some ways, with the "Hittite" system. These evidences of contact with analogous modes of writing in adjacent areas do not, however, seem to invalidate the conclusion that the Cretan system is essentially of independent local origin; earlier examples of its use go back to the third, and probably to the fourth millennium B.C.

II.—THE LINEAR SCRIPT OF MINOAN KNOSSOS.

The traditional centre of Crete was Knossos, the seat of Minos and capital of his sea-empire, the scene of the famous Labyrinth and of the works of Dædalos. Here were likely to be the fullest records of the early Cretan system of writing, and already in 1894 Mr. Evans acquired a site there where some ancient ruins were visible. The result of his excavations from 1900 onwards has been to bring to light a vast pre-historic palace the structure and contents of which revealed the existence of a high civilisation going back some 2,000 years before the earliest records of archaic Greece. The legendary "works of Dædalos" substantiated themselves in the shape of sculptures, moulded reliefs, and wall paintings showing extraordinary artistic skill; but the crowning discovery was the existence of whole archives of clay documents written in an advanced linear script. These had been contained in chests secured by seals, countermarked and countersigned, showing an elaborate bureaucratic organisation. The subject of the clay tablets was often shown by illustrative pictorial figures added to the inscription. Many were palace accounts and inventories relating to vases of precious metals, ingots, chariots and horses, cuirasses, swords and other arms and implements, corn and other agricultural produce, flocks and herds, and persons—perhaps at times slaves—of both sexes. Many contained accounts the numbers of which it was possible to decipher, and some tablets referred to percentages. Other inscriptions may eventually prove to be deeds, correspondence, or even official edicts, some perhaps containing formulas of the laws of Minos. There were also seals belonging to documents on perishable materials, and some vases with ink-written inscriptions within them give an idea of this class of Minoan literature.

The writing showed very modern characteristics and punctuation, and certain signs of value and quantity were varied according to an artificial method evidently devised by grammarians. About eighty signs were in common use, and in some cases, though linearised, they showed traces of pictorial originals. The characters seem to have had a syllabic value.

Specially important for the analysis of the script were long lists of personal names often showing a compound character and with suffixes changing in different positions. The non-Semitic character of the language was clear, and its type seemed to answer to that of the Indo-European group.

The linear characters came in with the later palace, about 1800 B.C., and though ultimately derived from pictorial prototypes were, on the whole, independent of the Cretan pictographic script. The result of the discovery of these clay archives was to show that a highly developed linear system of writing existed in Crete nearly 1,000 years earlier than the first known examples of Phœnician script. Neither series was of Egyptian origin, though the quickening influence due to early Egyptian contact might be admitted.

III.—CRETAN SCRIPTS AND "SIGNARIES," AND THE PHœNICIAN ALPHABET.

Besides the two definite systems of Cretan writing—the pictographic and the linear—we meet with a variety of isolated signs or marks on pottery and other materials. Similar marks are found in Egypt, distinct from the hieroglyphics, and going back to prehistoric times. These signs are of geometrical formation, anticipating alphabetic shapes, but did not necessarily always originate in artificial linear combinations. Some were certainly pictorial in origin, from rude line drawings such as a child draws on a slate. Such forms stood really nearer the origin of letters than the elaborately carved hieroglyphs of a more civilized age. They survived, in fact, to supply a formative influence, and models for a simpler script. In Egypt such marks were used for various purposes by guilds, like those of inlayers; and a remarkable series, partly, perhaps, actually borrowed from the Egyptian guild repertory, appear on ivory, bone, and

porcelain inlays of native Cretan fabric. A set of bone "fish" for inlaying, from the Palace, shows twenty-one varieties, ten of which are practically identical with forms of the later Greek alphabet. The signs found on the Palace blocks, though also geometrical, betray a pictorial origin more clearly. In this case several seem to be religious symbols.

The Cretan evidence supplies a new standpoint for examining the vexed question of the origin of the Phœnician alphabet. The earliest Phœnician monuments, like the Moabite Stone, go back to about 900 B.C. The earliest traces of the use of Phœnician letters by the Greeks may date from the eighth century. On the other hand, the recent discoveries of Sabæan and Minæan inscriptions in South Arabia tend to throw back the date of the origin of the Phœnician alphabet. The South Semitic forms were derived from types similar to the Phœnician, and the evidence tends to show that the Minæan inscriptions go back, at any rate, beyond the ninth century B.C. As in their earliest known form they show considerable divergence from the North Semitic prototypes, these must have been in existence some time before the first appearance of the South Arabian forms. We may suppose, then, that the Phœnician system was already in existence by about 1200 B.C. But a *terminus a quo* on the other side is supplied by the Tell-el-Amarna tablets, which show that the cuneiform script was still exclusively employed in Syria and Canaan about 1400 B.C.

From what source, then, did the Phœnician alphabet originate at some time about this approximate period? The great principle of akrophony, by which, instead of a sign being taken as a word or a syllable, it stood for the initial letter, is made the sole basis of the Phœnician alphabet. This great step in the evolution of writing was already partly anticipated in the Egyptian hieroglyphic series, where some "alphabetic" signs occur. Hence De Rougé's attempt to derive the Phœnician letters from Egyptian prototypes. By an eclectic process he sought these in certain hieratic forms of a much earlier period, making the Phœnicians re-name their letters according to a fancy system. This theory was popularised in England by Dr. Isaac Taylor, and still may be said to hold the field there, though the objections to it seem to be unsurmountable.

Even less happy has been the attempt of Peiser and others to derive the alphabet from cuneiform characters. In the names and order of the letters a Babylonian element may be admitted, and had the pictorial origins of Babylonian characters survived down to the period when the Phœnician alphabet arose, possible elements for its derivation might have been supplied from this quarter. But these early quasi-pictorial characters of old Chaldea had vanished some 3,000 years before.

The old simple theory of Gesenius and his followers, that the Phœnician letters were derived from the pictorial objects suggested by their names, seems on the face of it more natural than the artificial theory of De Rougé. A table prepared thirty years ago by Sir John Evans for the Royal Institution showed how easily the derivation from these pictorial originals might be effected. It was therefore highly interesting to find among the Cretan characters a whole series of pictographic forms answering to the prototypes of the Phœnician letters as conjecturally drawn, in accordance with the meaning of their names so far as can be interpreted, and in some cases accompanied by similar linear simplifications. A table of comparisons makes this abundantly clear. It is impossible to imagine that on one side of the same sea identical forms were arrived at by this natural process, while on the other they were artificially derived from an already antiquated Egyptian source. From the purely comparative point of view the Cretan evidence must be regarded as decisive as to the pictorial origin of the alphabet.

A still more interesting question arises—does the Cretan evidence supply something more than a parallel example? There was an agency at work which brought Crete, and the Ægean world that it dominated, into a direct relation with Canaan during the very period of alphabetic incubation. The biblical and Egyptian records both agree in

bringing the Philistine tribes from the "Isles of the Sea." The southern tribe of Philistines, the Hebrew Cherehim, are translated "Cretans" in the Septuagint, and their chief city Gaza preserved the Minōan name and the cult of the Cretan Zeus to classical times. New Egyptian evidence makes it almost certain that the mysterious Kaphtor is really Crete, the Egyptian Keftō, and the Kefts, the highly civilised people who bore offerings to the Egyptian kings, have now reappeared in the wall paintings of the palace of Knossos. The most familiar Philistine name, that of Achish, moreover, is already found in the Ægean home of the race (witness an Egyptian record) long before we hear of it in Gath.

The occupation of a large part of the coast lands of Canaan by Cretan and other Ægean elements about the thirteenth century B.C. seems to have been the effect of disturbances about that date in the Ægean area. The Philistines derived from this side must be looked on as representatives of what was in many respects a higher intrusive culture from the West; and the Cretan evidence shows that they would have brought with them a highly-developed system of writing. The Cretan characters, linear as well as pictographic, seem still to have retained a double use, either as word signs or as syllables. Thus when, as very soon happened, the language of the intrusive Ægean element was Semitised by contact with the surrounding populations, these signs may have received translated values. At the same time the impossibility of explaining several of the Phœnician letter names from any Semitic source may point in some cases to actual adoption from the Cretan syllabary. That there were several local variants of the Cretan script appears from the evidence of finds in different parts of the island. It is not necessary to suppose that the characters introduced by the Ægean occupants of the coast of Canaan were in all respects identical with the Knossian forms. Much must still remain hypothetical, but in the absence of any other satisfactory source for the elements from which the Phœnician letters were selected, the identification of the Philistines with a highly-civilised Ægean race, far advanced in the art of writing, becomes an extremely suggestive fact. Nor is it without significance that during the same period another parallel wave of colonists from the Ægean imported the "Mycenaean" culture into Cyprus and introduced there a syllabary showing points of conformity with the linear script of Knossos.

Palæolithic Age.

Reid.

Note on the Palæolithic Gravel of Savernake Forest, Wiltshire.

By Clement Reid, F.G.S.

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At the suggestion of Mr. C. H. Read, of the British Museum, I was asked by Mr. Teall, Director of the Geological Survey, to visit Savernake Forest to examine into the geological relations of the palæolithic gravels recently discovered in the neighbourhood of Knowle Farm. The following notes give the result of this examination:—

Knowle gravel-pit, from which so many palæolithic implements have lately been obtained,* lies on the east side of Savernake Forest, three miles north-north-east of Savernake Station, and just above the Marlborough and Hungerford road. Its height is 450 feet above the sea, but only 40 feet above the bottom of the adjoining east and west valley, which is a coombe in the porous upper chalk, dry at all times of the year and apparently now never liable to floods. The water-level in the well at the cottage in the coombe bottom just below the pit is about 40 feet below the surface, and is said to vary only slightly according to the season. Small lateral valleys run from south to north and have almost isolated the ridge on which Knowle Farm stands.

The palæolithic gravel, however, does not occupy the highest part of the ridge, which a mile south of the farm rises to 550 feet and is capped by Eocene strata.

* See Dr. Edgar Willett, *On a Collection of Palæolithic Deposits from Savernake* (*Journ. Anthr. Inst.*, Vol. XXXI., p. 310, with two plates. 1901).

This higher land spreads westward, and separates the dry coombe from the valley in which the Great Western Railway and the canal now run. A still higher ridge (about 600 feet) separates the dry coombe from the Kennet valley on the north.

It seems clear, therefore, that the palæolithic gravel of Knowle is connected with the dry coombe now occupied by the Marlborough and Hungerford road. The gravel lies fully 100 feet below the divides on the north and south, and is only 40 feet above the bottom of this coombe; most of this 40 feet seems, however, to have been excavated since the gravel was deposited. The gravel does not occupy any well-defined terrace, and its character does not suggest ordinary river action; it suggests rather intermittent floods washing angular material from the slopes above.

The deposit seen in Knowle pit consists of 12 or 15 feet of unstratified gravel of unworn or shattered flints, with 10 or 15 per cent. of Tertiary pebbles, rare greywethers, and numerous palæolithic implements, which occur at all levels, though most abundantly towards the base. There are no seams of clean washed sand or gravel. The stones are embedded in a loamy ferruginous matrix, which has been so thoroughly decalcified by percolating water that it seems hopeless to expect fossils, unless some massive specimen, such as a tooth of an elephant, may have resisted decay. The removal of the chalk rubble which once evidently formed a considerable proportion of the gravel, helps to account for the entire obliteration of any bedding that may have existed. Even now the irregular solution of the solid chalk below is tending still more to mix the material, for the workmen recently broke into a small cave, caused by the subsidence of the lower part of the gravel into a pipe in the chalk, the surface remaining undisturbed.

The exact limits of the palæolithic deposit are impossible to make out in so wooded a country, and in the absence of sections. It apparently occupies irregular shallow channels cut in a shelf which is roughly parallel with the coombe below and probably represents the old valley-bottom. At the same level as the Knowle Pit, in a gravelly field nearly half a mile to the east, I picked up another palæolithic implement.

The relation of this palæolithic gravel to the erosion of the valleys seems to show that it is contemporaneous with the well-known deposits of Southampton Water, Bournemouth, and the Avon Valley. There is nothing to suggest an earlier date, but at the same time the gravel seems more ancient than the erosion of the lower part of the dry chalk coombe below, and more ancient than such deposits as the Coombe Rock of Brighton or the lowest terrace gravels in the valleys of the south of England.

The reason for the occurrence of such large numbers of palæolithic implements at certain points is not quite clear. I would suggest, however, that the sites of the camping grounds in a waterless and bare region of chalk downs would be determined by the occurrence of water holes. In the case of the Knowle Farm locality, the proximity of an outlier of clayey Tertiary strata probably gave the water, shelter, and firewood so essential to a race of hunters.

At present little is known as to the climatic conditions under which palæolithic man existed in Britain, for though various slight indications suggest climatic extremes—with sharp alternations of cold, drought, and sudden floods—very few sedentary animals and plants have yet been collected in the same deposits. Pleistocene fossils have mostly been collected in other strata than those yielding the implements. To settle this question we need remains of plants or mollusca; for migrating mammals may leave a particular area for one half of the year, only to return when a long period of drought or cold is over. This same enforced migration would compel palæolithic man to follow the game, and would prevent permanent settlements except at favourable spots where water, shelter, and game could be found all the year round. In this connection it should not be forgotten that only as far away as Calais and Belgium the palæolithic implements occur

in true dust deposits, which graduate into the loess of the Rhine valley, and suggest desert conditions approximating to those of Central Asia. In Britain the climate seems to have been milder, but still we have indications of drought in some of the mollusca and small mammals, and perhaps also in the extreme poverty of the flora.

CLEMENT REID.

Tunis.

Myres.

A Tunisian Ghost-house. *By John L. Myres, M.A., F.S.A.*

It is a commonplace of human science that the dwellings of the dead recapitulate the characters of those of the living; but it is not very often that one has the good fortune to record so elaborate an example in the modern world as that which forms the subject of this note.

The photograph annexed (Fig. 1) was taken by me in Eastern Tunisia in the spring of 1897 by the side of the road which leads due west from Enfida Railway Station, and within a long stone's-throw of the last enclosures of the modern settlement. There were near it other rude interments of the miniature *koubbah* type described below; but there was no regular graveyard. The black object which leans against the enclosure wall is my umbrella, and gives some idea of the scale. The structure represents a miniature courtyard, roughly rectangular, enclosed by a mud-plastered wall of small stones. The entrance to the northward is flanked by monolithic gate-posts, and on the south side, roughly opposite, is a miniature *koubbah* or domed chapel, of the same materials as the enclosure wall, with similar monolithic door-posts (so far as one could see through the thick whitewash), and a lintel of untrimmed branches.



FIG. 1.—GHOST-HOUSE AT ENFIDA, TUNIS.

In the centre of the enclosure lay the tomb itself, a long, narrow mound, with a cross section like that of the *koubbah*, and with a little funnel-shaped drain on top near the end nearest to the gate of the enclosure showing black in the photograph, and leading into the interior of the tomb. The tomb, like the *koubbah*, the ring-wall, and the whole area of the enclosure, was thickly whitewashed. On the ridge of the tomb were sundry small stones, potsherds, &c., which I took to be offerings such as I have seen on less elaborate tombs elsewhere in Tunis and Tripoli. The interest of the tomb is threefold.

First, the enclosure exactly reproduces the features of the ordinary house enclosures of the living population of the North African littoral. Its combination of ashlar piers and rubble curtain-wall goes back to the characteristic masonry of the Roman period; and its bough-built lintel and vaulted living room recall the structure of the subterranean beehive dwellings of the Tarhuni uplanders in Tripoli (Fig. 2). Here, then, we have a type of ghost-house belonging to a stage of culture which in North Africa is pre-Roman, but has adopted Roman methods of construction as time went on.

Secondly, the ghost-house has grown upwards, under Mohammedan influences probably, into a cupola-crowned chapel of a type which is common all through Arab Africa; compare also the magnificent *koubbah* of Saracen work in the gardens south of

Palermo. In the necropolis of Takrouna, for example—about an hour west of Enfida—there are, or were, innumerable examples of it (only without the courtyard and tomb), of every size, from regular chapels eight or ten feet high and as much in diameter to mere white-washed stone or mud-pies the size of a turkey's egg. In one or two instances a modern glazed bowl or coffee cup, inverted, had ensured stability and saved the expense of white-wash!

Thirdly, by further contamination with modern Moham-medan custom, the little *koubbah*-chamber has ceased to be the actual tenement of the deceased, who is, no doubt, within the coffin-like Moslem tomb, out in the middle of the enclosure. Such tombs, only better made, and executed in hard plaster or even in stone, can be seen by hundreds in the Arab cemetery of Sûs in the immediate neighbourhood, and commonly, I believe throughout Tunis. At Sûs also, at all events, the little funnel-shaped opening was not only regularly present, but in some cases had recently been used for some form of libation at the time of my visit in 1897, and the occurrence, both at Sûs and at Enfida, of accessory objects, such as potsherds on or round the tomb, confirm the impression that some sort of cult goes on.

The peculiar interest, therefore, of this particular interment seems to me to be as an example of the gradual accretion of successive alien elements round a comparatively primitive observance, and of the survival of each and all without interference one with another; a phenomenon of which I have already published a good ceramic instance from an adjacent area (MAN, 1901. 83), and of which I hope shortly to illustrate a Christian example in the modern ghost-houses and tomb enclosures of the Greek island of Kalymnos (MAN, 1903. below).

JOHN L. MYRES.



FIG. 2.—SUBTERRANEAN DWELLING; NEAR SENAM-EL-ARIF, WADY DOGA, TARHUNA.

From a photograph, 1897.

REVIEWS.

Stone Age.

Read.

A Guide to the Antiquities of the Stone Age in the Department of British and Mediæval Antiquities. By C. H. Read, F.S.A., Keeper of British and Mediæval Antiquities and Ethnography, British Museum. London: British Museum, 1902. 21 x 14. Pp. xii + 124. Price 1s.

In this long-expected work Mr. Read has filled a blank in the series of catalogues, for which he deserves the thanks of all anthropologists. Now, for the first time, we have a guide to the great collection made by his predecessor, Sir Augustus Franks, and to the contributions to the museum made by Mr. Christy, from the caverns of France, and by Mr. Worthington Smith from the river-deposits of London. These three names stand out from a crowd of lesser benefactors to the museum. The author deals with his material under the four groups usually recognised by archaeologists: Palæolithic, Neolithic, Bronze Age, and Age of Early Iron. The first two of these are dealt with in this work.

In the introduction to the Palæolithic Age the author lays down the principles that rudeness of form is no test of age, and that the age of the implements is marked by the fossil mammalia found along with them, as well as by the order of the strata in which they occur. The river-drift implements at Hoxne are proved, by their position above the boulder clay, to be post-glacial, or after the glacial conditions had ceased. What is true of Hoxne is equally true of the rest of the river-drift implements, so abundant in East Anglia, as Lyell, Prestwich, Evans, and others have pointed out. While, however, he accepts this evidence as to Hoxne, he also accepts Mr. Skertchly's speculation,* that all the deposits containing palæolithic man in East Anglia are inter-glacial in age, and shut off from the Neolithic Period by one, two, or three deposits of boulder clay.

Unfortunately this sweeping generalisation has not been verified by subsequent discoveries, nor has it been reproduced in any of the numerous memoirs of the geological survey on this district, all of which deal with the implements under the head of post-glacial. It still remains to be proved. Nevertheless, we agree with Mr. Read in thinking that palæolithic man was in Britain during the time that the ice covered the northern districts. The palæolithic dwellers in caves in boulder-clay areas, such as those of Creswell Crags, of the Vale of Clwyd, and South Wales, were probably in those regions before the Glacial Period, their remains being protected inside the caverns, while all other traces outside were utterly destroyed by denudation during the vast ages of the Glacial Period.

Mr. Read groups the "eoliths," or rudely chipped flints of the "plateau gravel" in Kent, brought to notice by Harrison and accepted by Prestwich as artificial, under the head of Palæolithic Age, although the name eolithic was originally coined to imply pre-Palæolithic Age. He is, however, perfectly justified by the fact that undoubted palæoliths occur in the "plateau gravels" along with these disputed forms. In the Prestwich collection in the British Museum (Natural History), South Kensington, are three specimens, labelled by Prestwich, "Palæolithic implements found with plateau gravel specimens, Shoreham, Kent." The question, therefore, as to whether the eoliths are natural flints used by man, or artificially made tools, is of no special importance, because palæolithic man, the maker of advanced implements, was then in the land, and would certainly have used primitive types if they suited his purpose. From the point of view of evolution, the ruder and simpler must have preceded the more complex forms, but we have no evidence that this was the case during the time that man inhabited the Kentish plateau.

In the neolithic section of the catalogue the much-debated question as to the evidence of a passage from the palæolithic to the neolithic culture in Britain and the continent is discussed. The writer groups the "mesolithic," or intermediate types of Mr. Allen Brown, with the Neolithic Age, and concludes that the evidence of transition from palæolithic to neolithic implements has not yet been met with in Britain. The "mesolithic" implements are found on or near the surface, and mostly in ploughed fields. The fact that they occur in great numbers in the great neolithic implement factory of Cissbury, near Worthing, and that there they are merely the transitional forms in the fashioning of the flint nodule into the axe deprives them of all significance as evidence of a transition *in time*. They are unfinished neolithic axes broken in the making and thrown away. We wish that we could share Mr. Read's belief that M. Piette has met with a transition in the rock shelter of Mas d'Azil in Ariège. Here there was a palæolithic stratum on the floor, and a layer with polished stone axes at the top, and between them two strata, one with painted pebbles and cultivated plants, and the other with mixed palæolithic and neolithic implements. There is no proof of transition in this sequence, but of mixture. The grains of barley, and the stones of the cultivated plum, mark no period

* *Fenland*, 1878, p. 551.

of transition, but an advanced stage of neolithic culture. There is every reason to suppose that the neolithic was evolved out of the palæolithic culture in some part of the world, but we still wait for evidence that this happened in Europe. These are some out of the many points discussed by Mr. Read, in which there is room for considerable difference of opinion.

W. BOYD DAWKINS.

Africa, East.

Velten.

Schilderungen der Suaheli von Expeditionen v. Wissmanns, Dr. Bumillers, Graf v. Götzens, und Anderer. Aus dem Munde von Suahelinegern gesammelt und übersetzt, von Dr. C. Velten. Göttingen: Vandenhoeck und Ruprecht, 1901. 32

These narratives of travel, taken down from native dictation (except that of the late Abdallah bin Raschid, which was written by himself), are all more or less interesting. The first describes a trading journey from Bagamoyo into the interior, undertaken by Sleman bin Mwenyi Tshande and his associates. The date of the expedition was 1891, a time when continuous German influence was scarcely felt beyond the coast. A vivid picture is given of the difficulties encountered—lions, war, and local “sultans,” whose demands for *hongo* became more and more extortionate. The narrator is also perfectly frank in his account of the way in which the chiefs’ demands were evaded, on which, we suppose, there is no other comment to be made than “necessity has no law.” The route followed was the well-known caravan track *via* Mpwapa to Tabora in Unyanyembe; and thence, after a stay of over two months, south westward to Tanganyika. On reaching Karema they appealed to the German officer in charge, and by his help recovered some of their goods which had been detained by the chief Tshata in Kawende. They then entered the Fipa country and obtained canoes for crossing the lake from the chief Kapofi. Crossing to Marungu, they bought ivory at various places, and at last set out on their return journey by another route round the southern end of the lake, through Mambwe and Unyamwanga, north-eastward to Ugogo, and thence to the coast.

Selim bin Abakari next describes the expedition on which he accompanied “bana wangu, Dr. Bumiller” from Zanzibar to Chinde, and thence up the Zambesi and Shiré to the north end of Nyasa and beyond. This was when Major von Wissmann conveyed up to the lake the steamer sent out by the German Anti-Slavery Society. Dr. Bumiller on this occasion went as far as Utengule in Urori (or Usango), the residence of the famous chief Merere—traversing some comparatively unexplored country—and afterwards westward over the Fipa mountains to Tanganyika. Another narrative which can be checked from European sources is Abdallah bin Raschid’s, of Count Götzen’s adventurous journey across Africa in 1894, described in *Durch Afrika, von Ost nach West*.^{*} It is curious to compare the two accounts, which, without contradicting each other, differ almost throughout, the points on which each thinks it worth while to dwell in detail being so different. Abdallah’s account of the Kirungo volcano (the discovery and ascent of which were the great achievement of the expedition) is exceedingly bald; he is much more *au fait* as to the prices of provisions in every place visited. He has some interesting ethnographical notes; but Count Götzen says nothing of the cannibalism of the Watembe (Watembo?), nor does he seem to concur in Abdallah’s estimate of them as “watu wabaya sana” (cf. *Durch Afrika*, p. 262. “Zeichnen sich vielmehr gerade “durch offenes, freundliches Benehmen und heitere Gemütsart vor Anderen aus”)—which, by-the-by, Dr. Velten renders, a little too strongly perhaps, by “scheussliche Menschen (p. 220). Since we have mentioned the original Swahili (which is issued as *Safari za Wasuaheli*, simultaneously with the German version), we may as well advert to a sentence in the same passage where either the original text or the translation would appear to be at fault. Speaking of these same Watembe, we are told, “Na mavazi yao kama Banyani :

^{*} Berlin, 1895.

"na maneno yao kama mbwa." On the face of it this would mean: "Their way of dressing is like that of the Banyans, and their speech like (the barking of) a dog." It is just possible that *maneno* is a mistake for *mano* "teeth"; and so the translator appears to have read it, for he says, "Ihre Zähne sehen aus wie Hundezähne." This, in the mouth of a *mshenzi* would mean that they were not filed or clipped in any way, but left as Nature made them. From a Zanzibar Arab one would not expect such a remark without qualification or comment. And, unfortunately, Count Götzen, since he says nothing whatever about the teeth of the Watembe, leaves us without the means of deciding the point. In the note on p. 223 "Matadi" is surely a mistake for "Leopoldville," the place where the Congo ceases to be navigable and the land journey begins.

But the most notable items in the book, from the present point of view, are Mtoro bin Mwenyi Bakari's notes on the customs of the Wadoe and Wazaramu. Mtoro, who at present fills the post of Swahili Reader at the Berlin Oriental Seminary, and appears to be an exceedingly intelligent and well-informed man, speaks from personal knowledge, having travelled in Udoo, and frequently, ever since his childhood, resided at Dunda in Uzaramo. We can only indicate very briefly a few points which coincide with, or may throw fresh light on, facts already recorded by ethnographers. As we have them here, they are scarcely more than hints serving as a guide to further inquiry, but are well worth following up.

Among the Wadoe (an inland tribe who seem—at some time not precisely indicated—to have displaced the Wakamba living on the coast) some strange customs are observed on the appointment of a new headman or chief (*mwene*). The newly-elected dignitary is not allowed to leave his house for a month; and during this interval men are sent out to watch all the caravan roads and pick a quarrel with the first party of the neighbouring Wakami tribe who may happen to pass by, in order, if possible, to kill one of the strangers. This unfortunate man's skull is made into a drinking-cup, to be used at the inauguration, and his flesh is eaten by the Wadoe. Mtoro does not say how far his facts are derived from personal knowledge, and it is quite possible that what was delivered to him was merely the *theory* of the custom, and that, in many cases, the ceremonial act of cannibalism has been reduced to a symbolic survival. This act of hostility is called *uparara wa mwene*. The *mwene* is also subject to a lifelong taboo, forbidding him to cross a river, and is never allowed to shave his head or cut his hair (pp. 170, 171).

Their harvest customs are interesting (p. 186). Before the crops are brought in, an offering, called *tambiko*, is made to a spirit called *kinyamkera*: about two handfuls of the grain, whatever it may be, are boiled in a new pot and placed in a miniature hut built for the purpose at the crossing of two paths. We also find the world-wide association of some occult influence with cross-roads in the "medicines" placed there (p. 178) in order to protect a village against beasts of prey. Such a charm is specially needed in case of a stranger having brought into the village a certain kind of wood (we are not told what it is), which is never allowed to be used for cooking. If this taboo is infringed the place is likely to be attacked by large serpents (*majoka*) and lions.

The Wazaramu (p. 258) have a similar prohibition (*mizio*) of burning cocoa-nut shells. Here and there we find traces of totemism (though the system itself seems to be passing into oblivion), in the shape of these *mizio* (or *miwiko*), affecting families or clans. We would refer more especially to a curious passage on pages 195, 196, concerning the practice of *kuomba mvua* (praying for rain). In times of drought the elders of the Wadoe, it would appear, make pilgrimage to a certain cave in the district of Nguu, the abode of a powerful spirit (*mzimu*), who gives oracular responses by means of a roaring noise (*nguruma*) like the rushing of rain. If the spirit is displeased he is silent. This spirit was once a man, a *jumbe* (local headman), of Ukami, who was a great magician and invulnerable against ordinary weapons, but, having quarrelled with

his wife, she betrayed his *mzio* (the stalk of a gourd) to his enemies; they struck him with one, and he immediately vanished, leaving his clothes and turban in the cavern which he now inhabits. The account of the haunted forest in Kolelo (which contains this mysterious cave), with its clean-swept spaces for the dance ("within it there is white sand (on the ground) as if people had gone in there to sweep") and its drummings and joyful shouts of unseen revellers, recalls M. Junod's description of the sacred woods of Lebombo, where, in old times, "les dieux se faisaient parfois entendre; lorsqu'ils étaient heureux, ils jouaient de la trompette, chantaient et dansaient. Les passants cherchèrent souvent à les voir, mais le bruit se taisait et retentissait tout à coup derrière eux." By these gods we must understand, as elsewhere, the ancestral spirits.

We have only touched on a few of the points of interest raised in this volume, which is well worth attention.

A. WERNER.

Caste.

Bouglé.

Remarques sur le Régime des Castes. Par M. C. Bouglé. Extrait de l'Année Sociologique, 1900. 33

All students of the many difficult problems associated with the question of the origin and development of caste, particularly in relation to recent inquiries in India, will welcome the useful summary of the points at issue provided in this paper. M. Bouglé has obviously no personal experience of the institution as it now presents itself in India; but he is a diligent student of the literature of the subject, and he has consulted the latest and best authorities.

The main difficulty at the outset is to frame a working definition of caste. M. Bouglé seems to prefer a definition resting on three distinct points: "spécialisation héréditaire, organisation hiérarchique, repulsion réciproque." Much might be said as to the adequacy of this definition, but it being assumed as the basis of his review of the case, the writer has not much difficulty in showing that neither the Egyptian organisation of workers, as described by Herodotus, nor the feudal system, nor artificial aggregation, like the Church or Bar, nor the form of endogamy as it appears in the higher classes of European society in our own days, involves a conception of caste as it really is. This, as he chooses to define it, is found in India and in India alone.

He then proceeds to consider how far caste is related to the guild, the clan, or the class. As to the possibility of its being derived from the guild, his conclusion is thus stated: "L'observation de l'Inde apporterait donc une confirmation inattendue aux philosophies de l'histoire à tendance 'materialiste': en présentant la caste comme une institution naturelle et séculière dérivée de la gilde, on aurait du même coup démontré que dans la civilisation qui semble le plus profondément imprégnée de religion, c'est encore l'industrie qui façonne à son gré la forme sociale dominante."

Again dealing with India he writes: "Les vrais prototypes des castes ne sont pas les 'varnas' mais les 'jâtis.' Les chaînes qui unissent les membres d'une même caste n'ont pas été forgées avec les débris de celles qui unissaient les représentants d'une même classe; c'est de celles qui unissaient les descendants d'une même lignée que leur viennent leurs anneaux. Seuls les cercles formés par les familles étaient assez étroits et assez nombreux pour engendrer la multiplicité des castes. L'exclusivisme actuel des castes n'est que le souvenir lointain de l'isolement des clans."

And he thus concludes as regards India: "Une sorte d'arrêt de développement sociologique caractériserait ainsi la civilisation hindoue. Elle a prolongé indéfiniment une phase que les autres civilisations n'ont fait que traverser—ou plutôt elle a développé aussi les germes premiers, mais en sens général. Ce qui s'est dissous chez les autres s'est ossifié chez elle."

This contribution to the discussion of a very tangled question does not thus largely increase our knowledge. Had M. Bouglé experience of caste as it really is, he would, I fancy, be disposed to pay more heed to Mr. Nesfield's most valuable contribution to the discussion. No definition of caste which has been framed as yet, defines the two forces, social and religious, which have contributed to the history of its development. So far as regards those castes which discharge well-defined social duties, from the Brâhman priest down to the pariah, it looks as if functional differentiation was the prime agency in defining these myriad endogamous groups. On the other hand, the problem presented by tribes like the Râjputs is very different; and here we may suspect that their tribal organisation is descended from a system of hordes, which was, perhaps, derived at a much later date than that of some of the industrial classes from their ancestors in the Central Asian steppes.

Much, however, needs to be done before the question is ripe for final scientific treatment. When we still find it a matter of controversy whether anthropometry does or does not show distinct variance of type among the existing population, it seems obviously premature to expect a solution of the problem. For answers to this and many other disputed questions of Indian ethnology we must await the result of the investigations now in progress under the superintendence of Mr. Risley. Meanwhile, all students of the subject are indebted to M. Bouglé for a very able and impartial review of existing facts and speculations.

W. CROOKE.

Greece: Sociology.

Keller.

Homeric Society: A Sociological Study of the Iliad and Odyssey. By A. G. Keller, Ph.D., Instructor in Social Science in Yale University. London: Longmans, 1902. 19 x 13. Pp. ix + 332. Price 5s. net.

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A book of this kind was much needed. Friedreich and Buchholz are too bulky for the use of beginners; Gladstone is antiquated and fanciful; and the smaller Homeric handbooks of Jebb and Leaf cannot be expected to go into the many details which a student of sociology requires.

Dr. Keller has compiled a great mass of information about Homeric *Realien* of all kinds, and compared it, point by point, with the (often fanciful) statements of Lippert, Gumpłowicz, and encyclopædists of that kind, about the early culture of the Mediterranean: he gives his references fully, and for the most part correctly; and the use which he has been able to make of Professor Sumner's "unpublished lectures" has given him a scheme of sociological classification which will doubtless be fully intelligible when the classification itself is available to the public; though meanwhile it is not always easy to see what the system is intended to convey. There is a good index, a select bibliography (Hehn's *Kulturpflanzen* and Reichel's *Homerische Waffen* should be added), and a separate inventory of the Homeric passages which are discussed.

But the book has two bad faults. In the first place, the author does not always distinguish the exact statement of Homer, from the interpretation which he would like to suggest; a defect which in a student's text-book is a serious one. For instance, *Il.* 3, 185, does not state that "Phrygia is a great horse-raising country"; nor does *Od.* 24, 226-7, prove that "young children were early encouraged to take interest in the raising of fruit"; nor does even *Il.* 2, 595—the other passages quoted with it are irrelevant altogether—prove that "a great many of these singers or poets seem to have come from the North originally"; for the case of Thamyris is unique in Homer. In *Od.* 4, 584 *θεῶν χόλον αἰὲν ἰόντων* does not mean hostile Egyptians, and the experience of Odysseus, *Od.* 14, 263, 286, shows that Homeric Greeks showed no such respect for what he calls explicitly *Αἰγύπτιοι ἄνδρες*. There is a weird phrase on p. 31, which would mislead a beginner, almost as much as it would puzzle an expert:—"What little there may be of totemism in Homer indicates that it was a primarily goat-raising people that overcame the older inhabitants of the land." No reference is

given, but the next sentence discusses the *ægis*! The interpretation given (p. 286) of *Il.* 18, 500, seems based on a confusion between *μηδέν* and *οὐδέν*.

The other main drawback is that the author's hypothesis of Homeric Society, which is obtruded constantly, and perhaps inevitably, among the statements of detail, and, of course, largely colours the deductions from them, is one which ignores the whole of the last thirty years of exploration in Greece and the Levant, and would, indeed, have been far from unquestioned even half a century ago. "Until archaeological finds shall be proved contemporary with Homeric civilisation, and clearly subversive of it, the hypothesis of eastern influence upon early Greece, put forth by some of the older writers such as Movers, can scarcely be overthrown" (p. vii); "Movers, though old, is a splendid authority"! (p. 11); "Alybe and Cyprus were Phœnician colonies" (p. 54); "the Homeric Greeks had practically nothing of the arts and of luxury, and that the Phœnicians were bringing gradually into their horizon" (p. 6). It does not appear, in fact, to have dawned upon Dr. Keller, either that there may be archaeological finds "contemporary" with Homeric civilisation and yet not "subversive" of it—Professor Ridgeway, whom he quotes in support of his contention, would be among the first to reassure him on this point—or that the vast learning of Movers consists almost wholly of unverifiable traditions and extravagant etymologies, and was published long before the exploration either of Phœnicia or of prehistoric Greece can fairly be said to have begun; or, thirdly, that, whatever the date of the Homeric poems, there is now no period known in the history of Greek civilisation in which the Phœnician monopoly which he assumes can be demonstrated at all; and his own remarks about *Ægean* industry are sufficient to show how little he has gone into the evidence outside the bare text of the poems. As to the use of bronze, for example, "tin was very rare; and when it was scarce and dear in Sidon, it is not likely that foreigners were in possession of a large, usable quantity" (p. 54); so *χαλκός* has to mean copper, not bronze, in Homer; in spite of shaft-hole, double-axes, and other characteristic forms, and the overlap of a *χαλκός*-age in Homer with that of iron! Yet Dr. Keller knows (p. 23) that tin "came almost entirely from the West"; and Sidon is not in the west; some foreigners, therefore, had better access to tin even than Sidon: and the argument collapses. Similarly, if Homeric Greeks, as Dr. Keller admits, knew Egypt well, what becomes of the argument for a Phœnician monopoly of intercourse? He does not seem quite to have realised, either, that there is actually *more* frequent mention, in the poems, of Homeric people visiting the Levant, than of Phœnicians visiting Greek lands. Similarly again, the Phœnicians were first lured to sea in the search for the *murex brandaris* (p. 13); yet (p. 14) they "were first of all pirates." They were "first of maritime traders on the grand scale" (p. 10); they had colonised Africa and Spain in pre-Homeric times (p. 13), and they had originated the civilisation of the modern world: yet, on p. 14, it needs the quite unfounded hypothesis that Phœnician society was matriarchal, to explain their "weakness and want of power of expansion." And, again, if Phœnician society was matriarchal, how can it have inspired the Homeric account of patriarchal Phœacia which occupies most of Dr. Keller's section on "What Homer knew of the Phœnicians"? One has learnt, of course, not to expect a supporter of these Phœnician theories to care much about evidence; but one may fairly ask that his beliefs may be consistent with themselves. "Until archaeological evidence," we may reply in the author's own words, "shall be proved contemporary with Homeric evidence, and clearly subversive of it," we may leave the Phœnician will-o'-the-wisp to take care of itself: for, as Dr. Keller very truly goes on (p. vii.), "The presumption is always in favour of normal *versus* catatrophic evolution; upon those who assert the latter rests the burden of proof until the existence of the irregular can be convincingly established." The *deus ex machinâ*, in fact, is not the long course of *Ægean* civilisation, as we have known it these many years now, but the hypothetical Phœnician of Dr. Keller.

J. L. MYRES.



2.

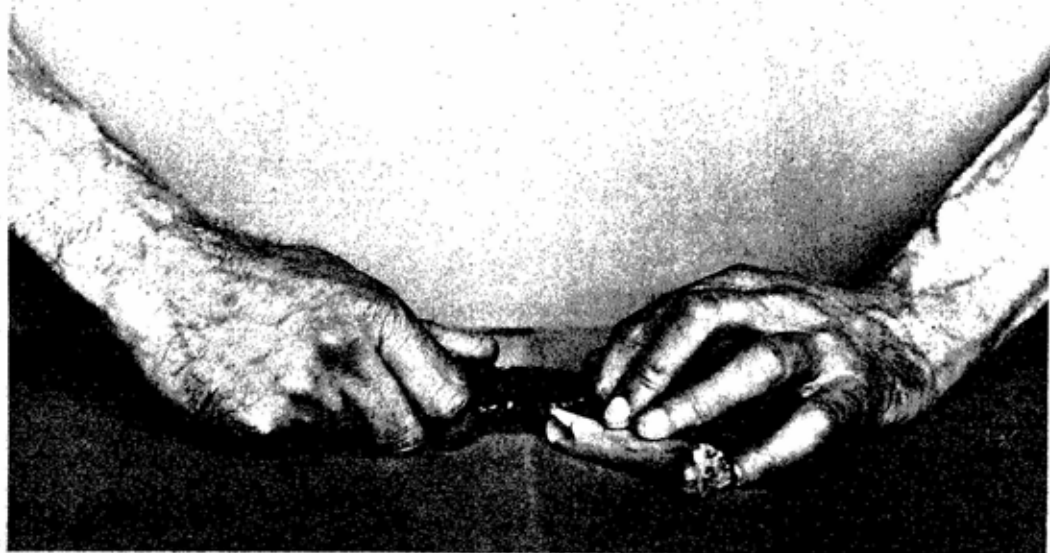


3.



1.

GLASS SPEAR-HEAD, AND TOOLS (PEBBLE AND BONE) WITH WHICH IT WAS MADE,
N.W. AUSTRALIA.



4.

MANNER OF MANIPULATING THE GLASS AGAINST THE BONE, IN THE PROCESS OF PRESSING OFF FLAKES.

ORIGINAL ARTICLES.

Australia.

With Plate E.

Balfour.

On the Method employed by the Natives of N.W. Australia in the Manufacture of Glass Spear-heads. *By Henry Balfour, M.A., F.Z.S., President of the Anthropological Institute.* **35**

The spear heads made with such skill by natives of N.W. Australia from broken glass bottles, telegraph insulators, and the like, have long been familiar objects in museums and private collections, and need no description here. As is well known, many of these spear-heads are really beautiful objects, and in delicacy of manufacture and symmetry of shape they compare very favourably with neolithic work of a high class. It becomes a matter of interest to know the methods by which the natives arrive at their excellent results, and it will probably be agreed that, in view of the extreme simplicity of the tools used in the operation of shaping pieces of broken glass bottles, &c. into spear-heads, the principal factors in the operation are extreme delicacy in manipulation, and perfect knowledge of the peculiar qualities of the material. Being very anxious myself to ascertain the methods employed, I asked Dr. E. Clement, who has travelled much in Western Australia and made extensive collections, to find out how the work is done, and also to bring me home the tools employed. Dr. Clement, to whom I am much indebted, readily responded, and secured for me the tools figured upon Plate E., Figs. 1 and 2, which had been procured from a native who was using them, together with a spear-head made with these very tools from a piece of a glass bottle (Fig. 3).

The contrast between the simplicity of the tools and the effectiveness of the results is very striking.

The implements consist of (a) a water-worn pebble (Fig. 1) of some hard, close-grained rock, of irregular shape, rounded on one face, flattened on the other; the upper end is rounded and fits the hollow of the hand comfortably, the lower end is blunt edged. The shape is purely natural. The weight of the pebble is $3\frac{1}{2}$ ozs. (b) A piece about 4 inches long, of the leg-bone of a sheep, which has been roughly broken across (Fig. 2).

The stone is abraded at the lower end, the abrasions extending some way up the convex face of the pebble. It was used for striking off and pressing off flakes from the glass, presumably during the earlier stages in the fashioning of the spear-head. Such abraded stones frequently occur amongst neolithic finds. The bone was used in the final shaping of the spear-head, and to some extent at least in the manner which is represented in the photograph (Fig. 4). This was not taken on the spot, but was arranged in accordance with a sketch which Dr. Clement gave to me. The developing spear-head was held in both hands in the position shown in the photograph, and the edges pressed with a slightly rotary movement against the edges of the broken end of the bone, which was held down with the fingers of the left hand. In this manner flakes were detached with considerable accuracy, and the serrated edges of the blade were formed by flaking deeper at regular intervals. The edges of the bone have been partially smoothed by rubbing, presumably to improve their shape for the process of flaking the glass.

HENRY BALFOUR.

India.

Gray.

Measurements of the Indian Coronation Contingent. *By J. Gray, B.Sc.* **36**

On the occasion of the coronation of His Majesty King Edward VII. there were brought to London a considerable number of troops, among which many of the non-European races of the British Empire were represented. It occurred to me that this would be a good opportunity of getting measurements which might be of some value

to ethnologists. Measurements of some of these races have already been published, notably measurements of skulls, by Sir William Turner, and of living heads, by Mr. Crooke and Mr. Risley.

The number of persons of each race which I have been able to measure is, unfortunately, by no means large; but I think it may be safely assumed that the averages of the small groups measured are not very different from the averages of the race or people which these groups represent, if there has been no selection. In the case of stature there has undoubtedly been selection by the military authorities, but in the case of the head dimensions there is no ground for supposing that military selection has exercised any disturbing influence.

Measurements were made of the Indian Coronation Contingent, and also of the Colonial Coronation Contingent. About 10 per cent. of the total number of troops in the contingents were measured; namely, 156 of the Indian Contingent and 110 of the Colonial Contingent. On the first visit to the Indian camp at Hampton Court, companies of six men from each of the twenty regiments represented were sent round to be measured, and on a second visit a few additional men were measured by going round the camp and accosting the men separately. In hardly any case did the men refuse to be measured. At the camp of the Colonial Contingent, at the Alexandra Palace, 110 men were measured. All the measurements there were made by personal application to the men, no assistance being received from the officers further than permission to make the measurements. Here, as at the Indian camp, not more than one or two refused to be measured. It is evident, then, that if a little more assistance had been given by the officers, practically the whole of the men in the Coronation Contingents could have been measured, and the conclusions arrived at from these measurements would have been of much greater value.

Three measurements were made on each person, namely, maximum length and breadth of head, and stature, these being the dimensions most commonly and most easily measured. The average of each dimension for each racial group has been calculated, and also the cephalic index of the average individual. The deviation of each group from average dimensions has been calculated by Karl Pearson's method, in which the standard deviation corresponds to what is known in dynamics as the radius of gyration. These deviations are of great interest as showing the uniformity or purity of the race of which the group measured is taken to be a fair sample. Where the standard deviation is small, it means that the individuals are all close to the average in their dimensions, and consequently that we are dealing with a race which, either through the influence of caste or of geographical isolation, has not for generations mixed with other races. When the standard deviation is large it points to the conclusion that two or more races are represented in the group, which could only be identified if we had measurements of much larger numbers.

India is divisible into three great natural divisions, differing entirely from each other in their physical features. In the extreme north are the slopes of the Himalayas, formed by the southern side of the great mountain barrier which separates India from the grand plateau of Central Asia. South of the Himalayan slope is a great plain consisting of the river basins of the Indus and the Ganges and their tributaries. In the extreme south is a triangular plateau known as the Deccan, separated from the great plain by the Vindhya mountains and flanked on its eastern and western coasts by the Eastern and Western Ghats.

The inhabitants of the Punjab and Gangetic plains speak Aryan languages, and their traditions declare that they were a fair race who entered India by the N.W. passes about 3,000 or 4,000 years ago. The higher castes of India, such as the Brahmans (the priest caste) and the Rajputs (the military caste) belong to this Aryan race. A later Scythic invasion of N.W. India took place in the first or second century B.C.

Afterwards a succession of Mohammedan invasions of India, commencing in the eighth century and lasting for several centuries, must have introduced a certain amount of the Arab and Turkish races into the population of India. But the proportion of these races introduced is generally considered to be small, and is certainly not co-extensive with the spread of the Mohammedan religion, since many of the native races have adopted this religion with little or no racial change.

The older school of philologists maintained that the Aryans came to India from Central Asia. Now Central Asia is inhabited at the present time by the most brachycephalic people on earth, and, as far as I know, there is no evidence of any different race having ever inhabited that region. If the older philological theory is right, we ought to find the Aryan races of India extremely brachycephalic.

The newer school of philologists maintain that the Aryans came to India from Scandinavia or the shores of the Baltic. Now the earliest inhabitants of Sweden were very dolichocephalic, and traces of an early dolichocephalic people, which has been identified by anthropologists with the inhabitants of Southern Finland, have been found over the whole extent of the plains of European Russia. The newer philological theory would therefore lead us to expect to find that the Aryan inhabitants of the northern plain of India are very dolichocephalic. Obviously measurements of the Indian people may furnish valuable evidence in enabling us to decide between these rival theories.

The inhabitants of the Deccan or southern triangle of India speak, generally, non-Aryan languages, and are presumed on that account to be of different race. A favourite theory is that they were the pre-Aryan inhabitants of India and came over the east and west Himalaya passes from Central Asia into India. If this hypothesis is correct they should be found to possess the extreme brachycephaly of the Mongolian inhabitants of the former region. Important light on the possibility or impossibility of this theory should also be obtained from these measurements.

The inhabitants of the Himalayan slopes are separated from the Mongols of Central Asia by the great range of the Himalayan Mountains, and it will be of interest to see to what extent this mountain range has served as a racial barrier. This will be evident from the presence or absence of extreme brachycephaly among the Himalayan races of India.



FIG. 1.—MAP OF INDIA SHOWING GEOGRAPHICAL DISTRIBUTION OF THE CORONATION CONTINGENTS WITH THEIR HEAD-LENGTHS AND HEAD-BREADTHS.

There are evidently many vexed questions in Indian ethnology, which measurements of the Indian people may help to settle.

The map of India (Fig. 1) shows the geographical position of the several races or clans represented in the Indian Coronation Contingent. These may be classified as—

N.W. Frontier.—Baluchis.

Himalayan.—Goorkhas, Garhwals.

Great Plain or Aryan Races.—Brahmins, Rajputs, Afridis, Pathans or Afghans, Sikhs, Jats, Marwari (Rajputs), Dogras.

Eastern Deccan.—Tamils, Mohammedans.

Western Deccan.—Hyderabad Contingent, Mahrattas, Moplas.

Table I. shows the average length and breadth of the head, and the average stature of each group, and also the standard deviations of each dimension as a percentage of the dimension. The average deviation for head length and breadth is about 3 per cent., but for stature it is less than 2 per cent. The small deviation of the stature is evidently due to the fact that the military authorities aim at securing a greater uniformity of stature than exists among the general population. Military selection is evidently also responsible for the very high average stature, which must be much higher than the general average. The stature measurements are therefore of little ethnic value.

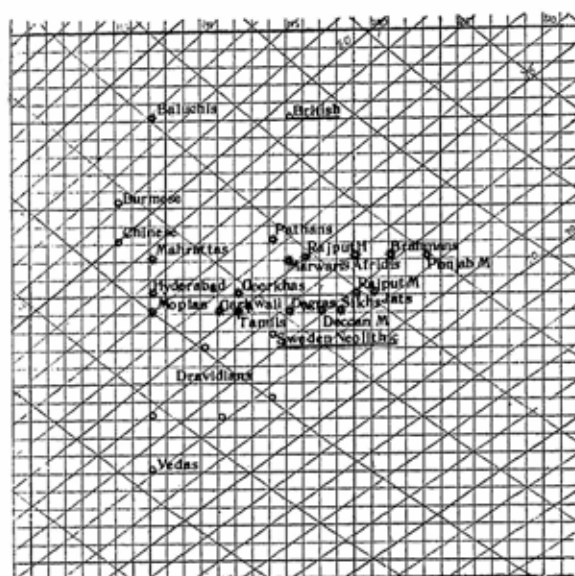


FIG. 2.—CEPHALIC CHART.

does not exceed 2 mm., which would not affect the conclusions to be drawn as to the relations of the various races. The average of the Swedish neolithic heads has also been marked on the chart and also the average British head.

It can be readily seen from the chart that the Great Plain or Aryan races all come very closely together. There is a great uniformity in their breadths, but the variation in lengths is greater. This latter variation is probably due to the combined influence of the Mongolian (Baluchis) and the Dravidian upon the pure Aryan stock.

An interesting result brought out by the chart is the fact that the Tamil and the Himalayan (Goorkhas and Garhwalis) heads are almost exactly alike. This points to the hypothesis that when the Aryans entered India at the N.W. they acted like a wedge and pushed part of the pre-Aryan races on to the slopes of the Himalayas, and part into the Deccan.

The Dravidians measured by Sir William Turner have considerably narrower heads than the Tamils of the Madras Pioneers whom I have measured. The probability is that the skulls were nearer the original type of Dravidians than the Tamils now found in the Indian Army. A mixture of the aboriginal Dravidians with a certain amount of the Aryan type would account for the displacement of the Madras Pioneer Tamils on the chart.

The people on the west coast and in the centre of the Deccan, namely the Moplas, Mahrattas, and Hyderabad Contingent, differ considerably from the Tamils of the east coast. Their heads are considerably shorter. This points to admixture of the Dravidians with some Mongolian element. There is a tradition that the Moplas are descended from

Arab traders, but the measurements indicate that the immigrants were Turkish, or of some other Mongolian element, probably from Persia or Baluchistan.

Were the Dravidians the aboriginal inhabitants of India, or are there any indications of a still more primitive type? I think we find this indication in the Veddahs of Ceylon. It will be observed that on the chart the Veddahs are lower in length and breadth of head than even the primitive Dravidians measured by Sir William Turner. These early Dravidians may therefore be due to admixture of an early invading race with an aboriginal Veddah race belonging perhaps to the Melanesian type.

The Baluchis on the N.W. frontier differ *in toto* from all the true Indian races. They are evidently closely allied to the hyper-brachycephalic type found in Central Asia. Their cephalic index, however, is only about 83·4, so that in the case of the Baluchis there has been a considerable dilution of the extreme type found in Tibet, where indexes over 90 are common. The presence of the Baluchis on the N.W. frontier of India may be the result of the Scythic invasion of the second century B.C.

It is interesting to compare these Indian races with the British race, which has exerted so great an influence on the later history of India. The average British head

TABLE I.

Racial Group.	No. of Per- sons.	Head-Length.		Head-Breadth.		Stature.			Cephalic Index.	
		Mm.	Devia- tion per cent.	Mm.	Devia- tion per cent.	Mm.	Ft. in.	Devia- tion per cent.		
I.—NORTH-WEST FRONTIER.										
Baluchis - - -	13	186	4·27	155	3·1	1,749	5 9	3·26	83·4	
II.—GREAT PLAIN OR ARYAN RACES.										
Brahmans - - -	7	200	1·32	147	1·96	1,796	5 10½	1·58	73·5	
Afridis - - -	18	198	3·39	147	3·80	1,769	5 9½	1·50	74·2	
Pathans or Afghans -	15	193	3·86	148	2·16	1,782	5 10½	3·27	76·3	
Punjab, Mohammedans -	9	202	2·75	147	3·4	1,819	5 11½	1·9	72·7	
Sikhs - - -	16	197	3·64	144	3·99	1,800	5 11	2·66	73·1	
Jats - - -	6	199	3·16	145	3·4	1,823	5 11½	1·17	73·0	
Rajputs, Hindu - -	6	195	2·52	147	3·2	1,786	5 10½	1·98	75·4	
„ Mohammedan -	7	198	3·45	145	2·63	1,825	5 11½	1·42	73·2	
„ Marwari - -	10	194	2·94	147	3·63	1,802	5 11	2·19	75·8	
„ Dogras - -	6	194	1·46	144	2·20	1,750	5 9	1·26	74·2	
III.—HIMALAYAN RACES.										
Goorkhas - - -	6	191	1·81	145	2·85	1,679	5 6	1·35	75·4	
Garhwali - - -	6	190	2·18	144	4·4	1,649	5 5	2·46	75·9	
IV.—EASTERN DECCAN.										
Mohammedans - -	6	196	3·98	144	5·43	1,708	5 7½	2·30	73·5	
Tamils, Madras - -	6	191	4·14	144	2·40	1,740	5 8½	3·15	75·4	
V.—WESTERN AND CENTRAL DECCAN.										
Hyderabad Contingent -	6	186	3·13	145	4·36	1,807	5 11½	0·63	78·0	
Mahrattas - -	7	186	3·99	147	3·36	1,740	5 8½	1·15	79·0	
Moplas - -	6	186	2·77	144	5·35	1,725	5 8	2·25	77·5	
Averages -			3·04		3·20			1·97		

(¹⁵⁵/₁₉₅) may be described as having the length of the Aryan races of India and the breadth of the Mongolian races. If we take the product of the length and breadth of the head as an approximate measure of the volume of all the present races in India, the Vedda stand at the bottom of the scale and the British at the top.

With reference to the question of the purity of the several Indian races, I have arranged them in three series (Table II.). First, according to the standard deviation of head-length; second, according to standard deviation of head-breadth; and third, according to the mean of the length and breadth deviation. Considering, for the present, the last series, we find that the Brahmans stand at the head of the series with the minimum deviation. This is exactly what might be expected from the exclusiveness of the Brahman caste. The second caste in India, the Rajputs, also come high in the list. The Dogras and Goorkhas appear to be also a very pure type, probably on account of their geographical isolation in mountainous regions. These tribes show only a very slight Mongolian taint. The Himalayas have apparently proved an almost impenetrable racial barrier.

TABLE II.

Deviation of Head-Length.			Deviation of Head-Breadth.		Mean Deviation.
Brahmans	-	1.32	Brahmans	-	1.96
Dogras	-	1.46	Pathans	-	2.16
Goorkhas	-	1.81	Dogras	-	2.20
Garhwalis	-	2.18	Tamils, Madras	-	2.40
Rajputs, Hindu	-	2.52	Rajput, Mohammedans	-	2.63
Punjab, Mohammedans	-	2.75	Goorkhas	-	2.85
Moplas	-	2.77	Baluchis	-	3.10
Marwari, Rajputs	-	2.94	Rajputs, Hindu	-	3.20
Hyderabad Contingent	-	3.13	Mahrattas	-	3.36
Jats	-	3.16	Jats	-	3.40
Afridis	-	3.30	Punjab, Mohammedans	-	3.40
Rajputs, Mohammedans	-	3.45	Marwari, Rajputs	-	3.63
Sikhs	-	3.64	Afridis	-	3.80
Pathans	-	3.86	Sikhs	-	3.99
Deccan, Mohammedans	-	3.98	Hyderabad Contingent	-	4.36
Mahrattas	-	3.99	Garhwalis	-	4.4
Tamils, Madras	-	4.14	Moplas	-	5.35
Baluchis	-	4.27	Deccan, Mohammedans	-	5.43
					Deccan, Mohammedans.

In making the measurements of the Coronation Contingents, I was assisted by Mr. Fallaize, the assistant secretary of the Anthropological Institute, who measured the statures, and by Mr. Bomanji, a Parsee gentleman, who acted as interpreter at the Indian camp. I hope to publish soon the analysis of the measurements of the Colonial Contingent.

J. GRAY.

Africa, South.

Correspondence.

A Plea for the Scientific Study of the Native Laws and Customs of South Africa: *A Memorial addressed by the Anthropological Institute and the Folklore Society to H.M. Secretary of State for the Colonies; and subsequent Correspondence.* **37**

This correspondence originated from a memorial adopted by the Anthropological Institute of Great Britain and Ireland and by the Folklore Society and addressed

by these institutions jointly, in 1900, to the Secretary of State for the Colonies. The text of the memorial is as follows :—

I.

The Memorial to the Right Honourable Joseph Chamberlain, M.P., Her Majesty's Secretary of State for the Colonies.

THE MEMORIAL of the Anthropological Institute of Great Britain and Ireland and of the Folklore Society, sheweth :—

1. That the native black population of the Orange River Colony and the Transvaal (lately known as the Orange Free State and the South African Republic respectively), including Swaziland, in South Africa, is estimated to amount to nearly 1,000,000 persons.

2. That such population is chiefly of Bantu stock, belonging to various Bechuana and Zulu tribes ; but it comprises also some tribes of Bushman-Hottentot stock, and a considerable number of individuals of mixed African and European descent.

3. That this native black population (hereinafter called "the natives") does not tend to die out in consequence of contact with Europeans ; on the contrary, the natives are prolific, and hence are likely to remain a permanent element of the population.

4. That the natives are, for savages, in a somewhat advanced social stage, having a tribal organisation, religious institutions, and a morality of their own ; that contact with civilisation tends to break up their organisation, to destroy their customs, and to set them free from many of the old moral restraints without imposing new ones, and generally to render them difficult of management by a European Government ; and that this tendency is greatly accelerated where, as too frequently happens, the Government does not take special pains to ascertain the customs and institutions of the natives, and to make regulations for them carefully considered in the light of such information.

5. That the difficulties of administration of native affairs in the Transvaal and the Orange River Colony are greatly increased by the large numbers of European settlers, the oppression to which the natives have been subjected by the Boer Government in the Transvaal, and especially by the existence of gold and diamond mines in the working of which native labour is claimed to be essential.

6. That many of the difficulties between Europeans and natives arise not from wilful disregard, but simply from ignorance by the former of the customs and superstitions of the latter ; that such ignorant disregard of native customs and superstitions and the consequent difficulties are common wherever Europeans have come into contact with savages, and it is notorious that disastrous results (including much bloodshed and suffering to both races) have often followed.

7. That an accurate knowledge of the customs, institutions, and superstitions of the natives is therefore important to the administration ; that such knowledge is also in itself of high scientific interest ; that it is true that something is already known on the subject from the reports of missionaries and travellers, but the knowledge is fragmentary and wanting in accuracy, and the same may be said of the knowledge doubtless possessed by many persons already on the spot ; that such last-mentioned knowledge, even if sufficient for ordinary purposes, not being recorded, has to be picked up in piecemeal fashion by everyone who is appointed to administrative office, and cannot be studied systematically, is liable to be lost, and introduces an element of uncertainty in the administration of justice and various departments of government.

8. That while some of such customs and institutions are of a character not to be tolerated by a civilised government, careful enquiry is necessary before deciding on any legislation, so as to ascertain the precise meaning and consequences of the customs which it may be proposed to abolish or to modify, and how to deal with them so as to cause the least disturbance of tribal conditions ; that if legislation be contemplated it will not be enough to legislate on the relations between Europeans and natives, it will be

necessary to consider also the relations of the natives between themselves ; that a native marriage-law will, for example, be required, because until a short time ago the Government of the Transvaal refused to recognise the marriages of natives, thereby causing much inconvenience and suffering ; even now the law of the Transvaal requires for the validity of a native marriage conditions which the natives cannot ordinarily fulfil ; and this law will have to be repealed or amended, since status and inheritance depend upon marriage, and questions on these points are likely to come before the courts for some kind of judicial decision.

9. That in the year 1880 the Government of Cape Colony, recognising the need for the purposes of administration and legislation of ascertaining accurately the customs and institutions of the native populations within the colony, appointed a commission of inquiry ; that such commission took a considerable amount of evidence, and made in the year 1883 a most valuable report ; that a quarter of a century earlier the Government of British Kaffraria found it necessary to obtain trustworthy information on the Kaffir laws and customs, and accordingly compiled and published in the year 1858 under the direction of Colonel Maclean, C.B., the chief commissioner, a compendium of such laws and customs.

10. That, though the customs and institutions of the natives of South Africa possess a general similarity, they differ from tribe to tribe in many and often important details, theft, for instance, in certain circumstances entailing punishment among some tribes and not among others, certain marriages being deemed incestuous among some tribes and perfectly correct among others, the law of inheritance varying, and so forth ; and that the results of the inquiries of the Cape Commission and the compendium of Kaffir laws and customs just referred to are, therefore, not to be relied on for the tribes of the Transvaal and the Orange River Colony.

11. That native customs are not always understood by Europeans, even when long resident among the natives and familiar with their customs ; thus, when in the evidence taken by the Cape Commission already referred to the practice of *lobola* (by which a bridegroom hands over to the father of his bride a certain number of cattle or other goods) came under discussion, one of the resident magistrates who gave evidence, and who had had many years' experience, considered the practice a sale and immoral, and recommended that it should be ignored, and it was stated that other magistrates refused to entertain in their courts questions referring to it ; several missionaries and others also gave evidence to the effect that the practice was simply a sale of the bride, and recommended its abolition ; while other resident magistrates and missionaries (among the latter the venerable Dr. Callaway, bishop of St. John's, whose name is never to be mentioned without respect) spoke of it in very different terms, showing that it was "the only stringent certification" of marriage among the tribes referred to, and that it was suitable to the conditions of life of those tribes ; natives themselves also gave evidence to the same effect ; and it is now well settled among practical administrators as well as anthropologists that *lobola* is not a sale but rather in the nature of a guarantee of good treatment of the woman by her husband and his family and a pledge of her future maintenance by her own relations in case of need, and as such it is, in the interest of the woman, not to be abolished or ignored by the courts. This desirable result must be attributed chiefly, if not entirely, to the labours of the Cape Commission.

12. That the advantages of obtaining a complete and trustworthy record once for all of the customs and institutions of the natives may be summed up as follows :—

- (1.) It will enable the Government to ascertain what customs may be recognised, and what customs must be forbidden or modified, and how to effect this object with the least disturbance to tribal conditions and native prejudices.
- (2.) It will save time and ensure certainty in the administration of justice, and obviate many difficulties in other departments of government.

- (3.) It will afford the Government authoritative materials for legislation adjusting the arrangements for native labour in the mines, and generally dealing with the relations between the natives and European settlers.
- (4.) The scientific value of such a record is difficult to over-estimate; it will preserve for all time an account of the culture of the natives at the moment when they came under British rule; it will assist in solving scientific problems of importance, and it will be a monument of the interest of the British Government and people in the welfare of the native races, and in the science of anthropology for which so much has been done in recent years by the Governments of the United States, France, Germany, and the Netherlands.

YOUR MEMORIALISTS therefore pray that you will be pleased to appoint, as soon as the condition of the Transvaal and the Orange River Colony permits, and prior to any legislation affecting the natives, a Commission to inquire (a) into the customs and institutions of the natives of those states, and (b) into the relations between the natives and the European settlers, with power to make recommendations for the purposes above referred to; such Commission to consist, so far as possible, of persons familiar with native life in South Africa, and, in addition, of at least one person, unconnected with South Africa, of recognised eminence in the study of savage customs and superstitions in general.

II.

To the Right Hon. Joseph Chamberlain, M.P., H.M. Secretary of State for the Colonies.

August 11th, 1900.

SIR,—I have the honour very respectfully to solicit your attention to the enclosed joint memorial of the Anthropological Institute of Great Britain and Ireland and the Folklore Society, relating to the black races of the Transvaal and the Orange River Colony.—I have the honour to be, Sir, your obedient servant, E. SIDNEY HARTLAND.

III.

Downing Street, September 8th, 1900.

SIR,—I am directed by Mr. Secretary Chamberlain to acknowledge the receipt of your letter of the 11th ultimo, forwarding a joint memorial from the Anthropological Institute of Great Britain and Ireland and the Folklore Society, praying for the appointment of a Commission to enquire into the customs and institutions of the native races in the Transvaal and the Orange River Colony and into their relations with the European settlers there.

Mr. Chamberlain desires me to state, in reply, that the recommendations of the memorialists will not be lost sight of, but that the time has, of course, not yet arrived when such a Commission could be appointed with any advantage.—I am, Sir, your obedient servant, JOHN GRAHAM.

The President of the Folklore Society.

IV.

To the Right Hon. J. Chamberlain, M.P., His Majesty's Secretary of State for the Colonies.

26300/1900. October 10th, 1902.

SIR,—We have the honour to refer you to the correspondence* which took place with the then President of the Folklore Society in the year 1900 with respect to a joint memorial of that society and the Anthropological Institute, praying for the appointment of a Commission to inquire into the customs and institutions of the native races in the Transvaal and the Orange River Colony, and into their relations with the European settlers there; and we beg leave to submit to you that the time has now arrived when such a Commission could be appointed with advantage.

* Mr. Hartland to the Secretary of State, 11th August 1900. The Under Secretary to Mr. Hartland, 8th September 1900; see II., III., above.

As representing the societies mentioned we ask that we may have the privilege of waiting upon you as a deputation in company with the other members of the societies, whose names are mentioned below, for the purpose of more fully laying before you the views which we entertain, and we shall be greatly obliged by an intimation of the time when it would be convenient to you to receive that deputation.—We are, Sir, your obedient servants, A. C. HADDON, President of the Anthropological Institute.

E. W. BRABROOK, President of the Folklore Society.

V.

The following list contains in alphabetical order the names of the persons who agreed to join the deputation :—

Hon. J. Abercromby.	R. W. Felkin, M.D.	Prof. Flinders Petrie, D.C.L.
G. M. Atkinson.	Miss Ffennell.	LL.D., F.R.S.
Lord Avebury, D.C.L.,	H. O. Forbes, LL.D.	Prof. York Powell.
F.R.S.	J. G. Garson, M.D.	Russell Rea, M.P.
Henry Balfour.	J. Gray, B.Sc.	C. H. Read.
E. W. Brabrook, C.B.	A. C. Haddon, D.Sc., F.R.S.	Prof. J. Rhys, D.Litt.
Miss Burne.	E. S. Hartland.	Prof. W. Ridgeway.
E. K. Chambers.	Dr. Harford.	W. Rouse.
Sir W. Church, Bart., M.D.,	Prof. G. B. Howes, LL.D.,	F. W. Rudler.
Pres. R.C.P.	F.R.S.	Prof. A. Sayce.
Edward Clodd.	Miss E. Hull.	F. C. Shrubbsall.
J. E. Crombie.	F. B. Jevons.	C. Tabor.
J. W. Crombie, M.P.	D. Brynmor Jones, M.P.	Prof. A. Thomson.
Prof. Cunningham, D.C.L.,	A. Keith, M.D.	Prof. E. B. Tylor, D.C.L.,
F.R.S.	A. L. Lewis.	F.R.S.
W. L. H. Duckworth.	R. B. Martin, M.P.	Prof. B. Windle, D.Sc.,
F. T. Elworthy.	J. L. Myres.	F.R.S.
Sir John Evans, K.C.B.,		
D.C.L., F.R.S.		

VI.

Downing Street, October 28th, 1902.

GENTLEMEN,—I am directed by Mr. Secretary Chamberlain to acknowledge the receipt of your letter dated the 10th instant, asking him to receive a deputation on behalf of the Anthropological Institute and of the Folklore Society with regard to the appointment of a Commission to enquire into the customs and institutions of the Native races in the Transvaal and the Orange River Colony.

2. Mr. Chamberlain regrets that he cannot regard the present time as a suitable one for such an appointment.

3. The officials of the new Colonies are most fully occupied in the task of organising the administration and in dealing with the numerous questions of pressing practical importance which arise.

4. Mr. Chamberlain does not at present feel justified in adding to their labours the work which the Commission you suggest would necessarily impose upon them, and he is not certain that such an investigation should not, in any case, be left to private enterprise.

5. Under these circumstances, therefore, he does not feel justified in troubling you to see him personally, although if you decide to carry out such an enquiry under the auspices of your societies he will be glad to give you any introductions that may help to further your object.—I am, gentlemen, your obedient servant, H. BERTRAM COX.

The President of the Anthropological Institute.

The President of the Folklore Society.

Africa, South.

Joyce.

On a Ceremonial Mask and Dress from the Upper Zambesi,
now in the British Museum. By T. A. Joyce, B.A.

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The appended photograph represents a ceremonial mask and dress collected by Mr. F. Schindler from the *Valovale* of the Upper Zambesi, South Africa.

The mask appears to be made of bark cloth stretched over a wicker frame and covered with a thick layer of black vegetable gum. There are holes for the eyes and mouth, and the teeth are represented by a small piece of pale wood with a jagged edge. The face is ornamented by strips of red felt and a pale paper-like material. At either side of the head is a short curved piece of bark to represent a horn, and from the top of the head rises a thin curved projection bound with felt; the chin is fringed with a beard of white goat's hair. The dress is composed of grass-string net, coloured red, white, and black, and so woven that the colours form a pattern of stripes and concentric triangles. It is in four pieces, viz., a neck piece, to which is attached the mask, a vest with long sleeves, and two stockings reaching the entire length of the leg. The dress is held together by means of a string lacing. In front is fastened an apron of leopard skin, behind a similar apron of lynx skin. According to information supplied by Mr. Schindler, it is the dress of a supposed resurrected spirit, worn by the men who attend the boys in the initiation camps. Initiation, accompanied by circumcision, takes place at any age between six and fourteen, always in the dry season. The boys remain from four to seven months in these camps, at first entirely naked, later on clad in a grass kilt, at which time they are occasionally allowed out. When they finally return home they are dressed in all the finery they can command. The camps are strictly private, and all paths leading thither are marked off by small heaps of dry wood; any woman trespassing near the camp would be severely beaten. There are four or five different masks worn at each initiation, and each has its own particular name; the title of the specimen represented is *Chizaluke* (the fool).

From time to time the masked men appear in the villages and the women collect and dance round them. The dress and mask are now in the British Museum.

T. A. JOYCE.

Ireland: Folklore.

Dobbs: Casement.

Remarkable Wells in the County of Antrim in the year 1683, as described by Richard Dobbs, Esq., of Castle Dobbs. Communicated by **39**
Roger Casement, British Consulate, Boma, Congo Free State. (Cf. MAN, 1902. 5.)

The paragraphs which follow are extracted from a manuscript description written by Richard Dobbs for one Moses Pitt, a bookseller and publisher in London, who in 1678 resolved to publish an English Atlas. Five volumes of this Atlas, in folio, are in the British Museum, but Mr. Dobbs' descriptions are not included. The publisher fell into difficulties before coming to that part of the Atlas.

"In Ballynewre (which is a small estate belonging to myself, and held by the Crown since the time of Queen Elizabeth) is a well called Toberdony, i.e., 'Sundays well' which in former times was very much frequented for sickness and distempers by the Irish, and still is by some on May Eve, Midsummer Eve, and Christmas. It is a plentiful running spring, and commended by all persons for excellent water, in which (it has been observed many years) is constantly a trout—not like the ordinary trouts in the country; sometimes it appears enclining to green, sometimes to black, has no spots, and in shape is very like a tench; at this time there are two in it, one near a foot long, the other not above three inches; they never go out of the well unless accidentally, and return again, tho' a river plentiful of trout be hard by. Some twelve years since a young fellow caught and carried away one of these trouts, and died within two or three days after, so now it is looked upon as a *Noli me tangere* ('Don't touch me').

"There was, when I was a boy at Saul, within a mile of Down-Patrick, near the East-end of the Abbey, a small spring well, which I have seen, and the inhabitants told me it would run dry, or vanish, if foul hands or linen were washed in it. In this Abbey Yard (I have seen, and perhaps is there yet) a little lodge built, walled, and roofed with lime and stone fit to contain one person only, wherein, tradition says, St. Patrick lodged, this being the first place he settled in, when he first came to Ireland, and I have heard old people say they had seen a stone there (a hard pillow) wherein appeared a hollow where the saint used to lay his head.

"There is here a Castle, and another Castle, the Coile, within an English mile of it, and about midway a Lough about a mile about, and above this Lough a good height there is a stone with two round holes in it, of a fit bigness, where I have been told by old Irish people that St. Patrick said his prayers when he first came to land in Ireland; it is not far from the water that flows by it from Strangford to Downpatrick which I have seen often flow into this lough. St. Patrick's well, by the Irish called Srooil, is a mile from Down-Patrick and about a mile from Saule, there is a little round place like an oven that will hold half a dozen men which is called the mother of the well; when I saw it little more than ancle deep, and from this, underground, about 50 yards the spring runs through the wall of a little house now without a roof, where about 4 feet high it spouts out, and there people hold their heads and naked bodies under it when they wash; it is extremely cold, and a flat broad stone whereon it perpetually falls is so slippery, that what with it, and the coldness of the water, people do often fall and hurt their naked bodies.

"The Irish use many ceremonies here, and there are seldom to this day less than 300 or 400 persons here upon Midsummer Eve yearly to wash and drink and say their Pater Nosters. Here is on the face of the Hill above it a rock they call St. Patrick's Chair; to this chair I have seen people creep up on their bare knees from the well (the way worne bare, and slaty, sharp, stony ground) that they have been Bloody.

"On the South West of this house (which is built Castle-ways with a Barn wall) about an English mile from it, near the highway leading from hence to Antrim, there

" appears among some small hasle shrubs a pretty brisk spring, much drunk by the
 " ordinary people hereabouts. I have been told that this well water will bubble and
 " make a little murmuring noise, if the party for whom it is brought will recover—
 " otherwise it will be smooth and still.

" But the well that gives much occasion of discourse in this county is Cranfield
 " well, hard upon the edge of Lough Neagh, and on the north side of the Lough; the
 " Irish in great numbers frequent it on May Day. Out of this well are got, on May
 " Day in the morning, small transparent stones with several squares, pointed sharp, if
 " not broken in the getting, like amber, but brittle, and will not suffer a file nor other
 " polishing than what is natural, and appears artificially polished.

" These stones tradition delivers, to rise or spring up and so to be found only on
 " May Day in the morning, and so it is generally delivered and believed by most of the
 " Irish and many other people; the virtues of the stones (if the Irish speak true) are
 " many; as that a man shall not be drowned that has one of these about him; that a
 " woman having this shall have easy and safe labour in child-bearing, which many have
 " approved either by experience or fancies, and imagination will work wonders; that a
 " house in which one of these is will not be subject to take fire by accident, nor to be
 " [] by thieves—*cum multis aliis*; yet I have been an eye-witness of these
 " stones being got here in July, which was thus:—We employed an Irish Girl (for such
 " live hereabouts) about 13 or 14 years of age, used to the trade. She first laved (with
 " the help of a boy) the water out of the well with a dish at the entrance, and the whole
 " being made pretty dry, she crept in, and went stooping out of our sight, where
 " scraping with her hands, fingers, and nails, she raised some of the rotten rock or
 " gravel in the bottom of the hole, which bringing out in the dish, or delivering to the
 " Boy, who was behind her in the hole, he handed the dish out, and amongst the gravel
 " we could find sometimes one, sometimes 2 or 3 of these stones, and sometimes none
 " at all; upon which, considering from whence they might come, and observing well
 " the place about, I found all to be a sort of dark grey rotten and mouldering rocky
 " ground, and so into the Lough which beats near the well; and my opinion is that
 " these stones may be got at any time in Summer, especially in dry weather, when the
 " Lough rises not too high, or the well be not too overpressed with water from the
 " upper grounds, and that they are in the rock, and rise as that is broken or raised; that
 " if any would take the pains to sink into the Rock near the well and as low (which I
 " suppose is little above 4 or 5 feet from the surface of the earth) the matter would be
 " out of dispute Mr. John Osburn, who was concerned for the Marquis of
 " Antrim's Creditors, and lives in Dublin, can give you a relation of an odd experiment
 " made by his wife (since dead). I think it was upon occasion of a violent flux of
 " Blood either upon herself or some neighbour, and the Cure was done by putting a
 " Cranfield stone into burnt Claret, and so drunk by the afflicted party. I know she
 " had one of these stones from me especially desired by her when with child, being
 " subject to hard labour in child bearing, and has told me she thought herself much
 " better of them."

REVIEWS.

Craniology.

Bluid : Schwalbe.

Beiträge zur Anthropologie Elsass-Lothringens. I.—Der Schädel von 40
Egisheim. By G. Schwalbe. *II.—Die Schädelformen im Schorbacher*
Beinhause. By E. Bluid. Strassburg : Karl J. Trübner, 1902. Drittes Heft.

In the first of the two memoirs contained in this portion of the above-mentioned publication, Professor Schwalbe follows up his investigation of the Neanderthal skeleton with a similar inquiry into the nature of the well-known skull from Egisheim, near Colmar, in Alsace. This skull has been claimed by several writers, particularly by De

Quatrefages and Hamy (*Crania ethnica*), as a representative of the oldest known human race, which included the skulls of Neanderthal, Egisheim, and Canstatt, and was described by these authors as the Canstatt race.

The present memoir is not the first which Professor Schwalbe has published on the subject of the Egisheim skull. His earlier publication in 1897 was much less complete than the present one, and is less accessible, as it was a communication made to a scientific society at Colmar. The work now under consideration consists of a review of the existing literature of the Egisheim skull, together with certain corrections of the writer's own earlier work, rendered necessary by differences in the dimensions of the specimen itself (which is now used for study) and the casts supplied, which formed the basis of the earlier paper. The result of the inquiry is a satisfactory demonstration of the distinctness of the gap which separates the Neanderthal skull from that of Egisheim, the latter being found to agree with recent human skulls in the points in which it differs from the Neanderthal specimen. The earlier view as to the nature of the Egisheim skull must be therefore abandoned. The general character of the investigation is similar to those which proved so fruitful when the author was examining the calvaria of *Pithecanthropus erectus* and the Neanderthal skull. There may be specially mentioned the graphic method whereby differences in the frontal curvature of the Neanderthal and Egisheim skulls are brought out (text-figures 13, 14, 15, 16).

The principle involved is the comparison of superimposed tracings of the sagittal arc of the frontal bone, and a sagittal curve, not mesial as in the case of the sagittal arc, but in a sagittal plane passing through the middle of the supra-orbital margin. In addition to this particular means of comparison, there will be found throughout the memoir very valuable comparative data from skulls of various primitive human races, such as African (Djagga) negroes, Oceanic negroes, &c. Excellent photographs of the Egisheim skull accompany the memoir.

Finally, the question of the geological age of the strata in which the Egisheim skull was found is discussed. This is now regarded as less ancient than formerly, and is designated "later diluvial period."

The second memoir consists of an account of skulls from an ossuary at Schorbach, in Lorraine, the particular interest attaching to the collection depending on the natural isolation of the locality, which would tend to preserve the inhabitants from racial admixture. Dr. Bluid compares the Schorbach skulls with those from other neighbouring localities, and particularly with Alsatian skulls, and finds that the comparison and similarity are very close. The Schorbach skulls, like the Alsatian skulls, are capacious, high, broad, and short, and, in comparison with the latter, the former (Schorbach) crania are rather higher, with broader facial skeleton, orbital, and nasal apertures, possessing at the same time narrower palates and foramina magna. The numerical results are recorded in tables and embodied in a series of curves, and an instructive map of the distribution of cephalic indices in Alsace Lorraine is appended.

W. L. H. DUCKWORTH.

Servia: Neolithic.

Vassits.

Die Neolithische Station Jablanica bei Medjulužje in Serbien. By Dr. Miloje M. Vassits, Keeper of the National Museum, Belgrade. Braunschweig: Vieweg, 1902. 28 x 23. Pp 66, with 133 illustrations. Price 6 marks. **41**

This brief memoir, which will form part of Vol. XXVII. of the *Archiv für Anthropologie*, marks a distinct advance in our knowledge of the conditions of primitive advancement in the Balkan Peninsula. Jablanica lies about three miles west of the main road from Belgrade to Nisch, and about thirty-five miles from the former. The neolithic site was cut through in making a road; the village schoolmaster was on the alert; the "central authorities" acted promptly; a regular excavation ensued; and the

results *in extenso* may be studied in the National Museum of Belgrade. This is a kind of thing which does not easily happen in less enlightened countries than Servia. Why, no one quite knows, except the School Boards and the Treasury.

From the copious series of neolithic pottery and clay figures of men and animals, which emerged, Dr. Vassits has been able to reconstruct a "missing link" of some importance. From the neolithic site at Butmir to its nearest available counterpart hitherto—the neolithic settlement at the bottom of the great series at Hissarlik—was admittedly a far cry; and the quite inadequate data hitherto available from a very few Thracian tumuli, lay too near the latter to be regarded as really intermediate. Consequently, conjecture has flourished; and has solidified here and there into dogma. Under these circumstances, a glance at the map shows what Jablanica means. As Dr. Vassits justly remarks (p. 65), the long obstructed exploration of the Thracian tumuli will now be corroborative mainly.

One remarkable conclusion is drawn from the new evidence, which, though not perhaps incontestable as yet, is highly suggestive as an hypothesis. The art of painting, in the early culture of south-eastern Europe, hardly penetrates beyond the seaboard of the Ægean; and, even in the Hellespontine region, remains rare and exotic, right on into Hellenic times: at Jablanica, though apparently one red pigment was known, painting is practically ignored. On the other hand, rude as they are, the modelled figures from Jablanica are not only far more numerous than at Butmir, but far better modelled than in the neolithic stratum at Hissarlik. Dr. Vassits accordingly suggests that, as vehicles of artistic expression, painting and modelling may have been in some sense alternatives; the former endemic to south-eastward, and the latter to north-westward. This suggestion markedly reinforces M. Salomon Reinach's brilliant destruction of the "Mirage Orientale," in regard to the sources of Ægean canons of modelling; but it is not quite clear that Dr. Vassits is *au fait* either with recent work in the South Ægean (*e.g.*, his implicit acceptance of Hørnes' paradox on p. 10); or with the British work of the last ten years in Cyprus (he relies implicitly on Dümmler's work, which represents one brief visit in 1886); or with such outstanding data as the British Museum's figurine from Adalia (*Journ. Anthr. Inst.*, XXX., p. 251 ff.) which shows marked points of resemblance to his own Fig. 19, coupled with considerable superiority of fabric. These, however, are minor points, and do not affect the great value of Dr. Vassits' discovery, nor the learned and scholarly commentary, which his memoir supplies. J. L. MYRES.

Pacific.

Pallander: Hall and Osborne.

The Log of an Island Wanderer. By Edwin Pallander. London: C. Arthur Pearson, Ltd., 1901. 20 × 13. 320 pp. 32 Plates. Price 6s.

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Sunshine and Surf: A Year's Wanderings in the South Seas. By Douglas R. Hall and Lord Albert Osborne. London: A. and C. Black, 1901. 21 × 14. 320 pp. 36 Plates. Price 12s. 6d.

Of these two books the one which should prove the more attractive from the popular point of view is undoubtedly the first. Always brightly, in some places almost brilliantly, written, it describes in a vivid manner the scenery of the islands of the South Seas. Although there is little which may be taken as directly bearing upon any ethnological question—indeed, the author frankly states that his intention was to amuse, and ethnology presumably falls outside this province—yet he has grasped the salient points in the character of the natives, of whom he writes with no little insight and sympathy. Few could lay down this book without gaining an insight into the character of the natives, and nothing is more essential than this (failing a personal acquaintance), for a true appreciation of the habits and customs of any people whoever they may be. Mr. Pallander is equally happy when dealing with European inhabitants of these Islands. The book concludes with a chapter on the question of intermarriage between

natives and Europeans, which is written with discretion and no little common sense. It is unfortunate that the good impression created by this book should be marred by the excessive use of colloquial expressions.

Sunshine and Surf is an account of a tour in the South Seas extending over a period of 12 months, in which the Paumotu, Marquesas, Cook Islands, New Zealand, Fiji, Samoa, and the Sandwich Islands were visited. Although written at about the same time as Mr. Pallander's book, *The Log of an Island Wanderer*, and often describing the same events, it cannot be said to approach it in interest, and in comparison with it appears to be lacking in clearness of vision and grasp of detail.

Credit must certainly be given the authors for such observations as they have made and recorded, but as might be expected from the fact that Mr. Hall in his preface disclaims any attempt at producing a "monument of scientific research," the observations were partial, unsystematic, and utterly wanting in scientific spirit. A large amount of ground is covered, and a correspondingly large amount of material is contained in the book, but no attempt to classify or arrange this material is made. It is deplorable that at a time when it is daily becoming more difficult to obtain information about primitive races, owing to the spread of civilisation and civilised ideas, that much that is valuable, and which in a short time must become unattainable, should be lost from want of even a little training in scientific method and system. This is especially the case with the present work, for although the tour was nothing more than a holiday jaunt the authors claim to have been privileged beyond ordinary travellers in many ways, and much material of value to ethnologists might have been gathered had a more thorough and systematic method of observation been pursued.

The illustrations, of which there are thirty-six, should prove of the greatest value, consisting as they do for the most part of excellent reproductions from photographs of the various types of the inhabitants of the South Seas. E. N. F.

New Zealand.

Drummond: Hutton.

Nature in New Zealand. Compiled by James Drummond and edited by Captain F. W. Hutton, F.R.S. Christchurch, New Zealand: Whitcombe and Tombs, Limited, 1903. 19 x 13. pp. 188. Price 2s. 6d. 43

This scientific handbook, "published with the hope that the boys and girls of New Zealand will find it both interesting and instructive," without doubt eminently fulfils its purpose, and at the same time is full of interest to those of more mature years. The first twelve chapters are devoted to natural history, Chapter XIII. to the geological formation of New Zealand, and the remaining eight chapters to the Maori—(i.) His Origin; (ii.) Navigation; (iii.) Arrival in New Zealand; (iv.) Myths, Legends, and Fairy Tales; (v.) Domestic Life; (vi.) The Snaring of Birds; (vii.) Arts and Manufactures; and (viii.) The Tohungas. In order to make it comprehensive to the younger members of the community there is at the end of each chapter a glossary of terms, not only scientific, but of words which a child might readily understand.

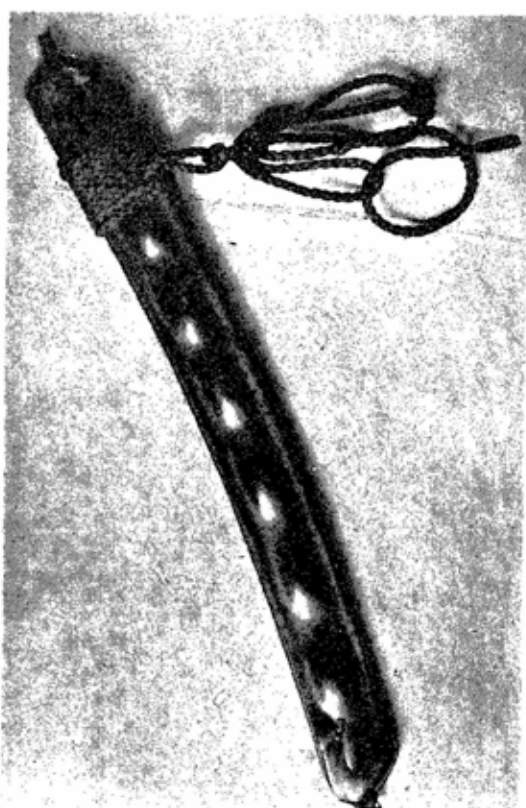
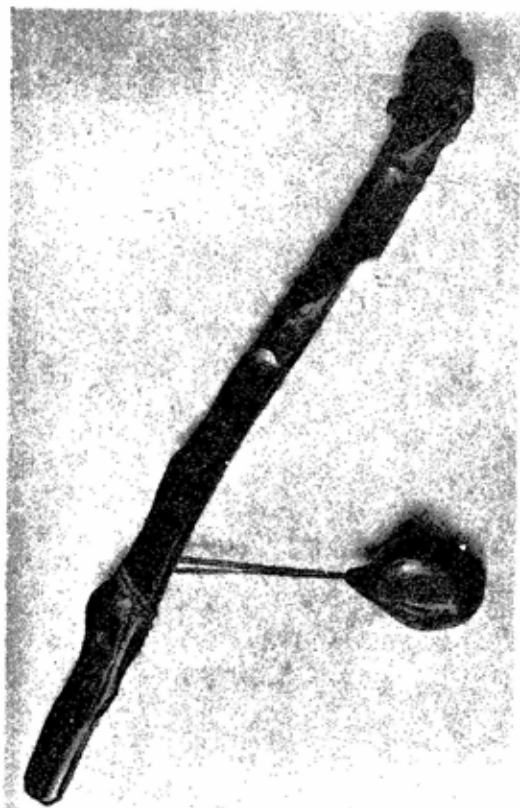
The book is well illustrated, and can be strongly recommended to parents as a suitable book for their children. The name of Captain Hutton as editor is a sufficient guarantee of the accuracy of every detail. J. EDGE-PARTINGTON.

Archæology: England.

Ireland.

Stonehenge: The Story of its Building and its Legends. By Arthur J. Ireland. London: J. Henderson and Sons. 18 x 12. 18 pp. Six illustrations in text. Price 6d. 44

A useful little work for archæologists to keep a few copies of, to give to friends who want to know something about Stonehenge, but who are not able or willing to spend much time upon the subject. A. L. L.



JAPANESE BOKU-TO.

ORIGINAL ARTICLES.

Japan.

With Plate F.

Hartland.

Two Japanese "Boku-to," or Emblems of the Medical Profession.**45**

By E. S. Hartland, F.S.A.

The objects figured are two specimens of the emblems of their profession worn by medical practitioners in Japan before the revolution of the last century, which displaced so many of the old customs of the country. They are called *boku-to*, or wooden swords. A man of rank was formerly entitled, in Japan as elsewhere, to wear a sword. Indeed, in Japan, he was entitled to wear two swords. The retainers of a Daimiō, or feudal lord, also wore swords; but the inferior retainers wore only one sword, and that wooden. Though no more than symbols, however, the latter were more realistic than those before us. The doctor, as Mr. W. G. Aston, whom I have consulted, conjectures, was probably entitled to wear a sword as a necessary part of a gentleman's accoutrements; but, to indicate the pacific character of his profession, it was made of wood, and was generally of a more fanciful description than those carried by Daimiōs' retainers of the lower class. The doctor's swords were made in many forms. Some contained lancets, others knives for cutting herbs. But the majority were, like these, quite plain.

One of the objects figured is in the shape of a large bean-pod. Its bean-like curvature approximates to that of a Japanese sword. It is 44 cm. in length, and of nearly uniform circumference of 11 cm., or thereabouts. It is made of some fairly hard wood which takes a polish; and it is carved to indicate seven seeds inside. Wrapped around it is a silken cord, by which it was attached to the girdle. Together with this cord it weighs 6½ oz. avoirdupois. On one side there are represented in lacquer a grasshopper and another large insect. On the other side are similarly represented a wasp, a small fly somewhat like our common house fly, and apparently a small beetle.

The other *boku-to* is more interesting. It is a rough piece of willow, 45 cm. long, broader at the bottom than the top. At a distance of 9 cm. from the top it is pierced with a hole, 3½ cm. long, which has been utilised to attach a flat cord or tape and toggle for convenience of holding it in the girdle. The cord is of a pale red colour, now a little faded. The *boku-to*, cord, and toggle weigh together under 4½ oz. avoirdupois. The toggle is a natural seed-vessel or fruit, fig-shaped, perhaps a kind of fig, 7 cm. in length by 5 cm. in breadth at its widest part. It has been hollowed or gutted to receive the cord, which enters it at the stalk end. There are two holes, one at each side, about halfway down one face of the toggle. One of these holes is plugged with cork; the plug of the other has gone. Objects carried in the girdle of a Japanese were secured by a toggle, generally of carved wood or ivory. Such an instrument was called a *netsuké*. Specimens are plentiful in this country now, and are frequently of the most exquisite fancy and workmanship.

The *boku-to* in question has been torn off a larger stick or branch, and the torn surface is concave. Twigs and excrescences have been cut off the back and the surface made fairly smooth, although retaining its natural form at the lower end. The upper part, however, for a distance of 26 cm. from the top has been sliced flat, and Japanese characters (in what is known as the "grass" hand), meaning *Spider-boat*, have been deeply cut upon it. A slice has also been taken from one of the sides. It is not varnished, but has been to all appearance treated with some sort of oil for the purpose of preservation.

The name *Spider-boat* seems to be derived from a legend, common in Japanese poetry, of a spider dropping down from a willow-tree and using a fallen leaf as a boat to reach the farther side of the stream. The *boku-to* is of willow, and a little imagination will perhaps find a resemblance in its shape to a boat. It is evidently of some age.

Boku-to are not now common. My brother, who bought these two specimens at Atami, in Japan, a few months ago, and who resides at Yokohama, writes that he has

been on the look out (though not, I understand, actively inquiring) for some for years. Collectors are probably aware of their interest, and my object in figuring them is to elicit further information. E. S. HARTLAND.

Africa, West.

Martin.

Notes on the Ethnology of Nigeria. By E. F. Martin, Local Correspondent of the Anthropological Institute: being portions of a Letter dated 15th October, 1902. Communicated by Professor Arthur Thomson.

46

I should like, after the kind interest you evinced, to give you a general idea as to my impressions after some years' sojourn in Nigeria.

My headquarters have, up to the present, been at Lokoja. I have, also, at times, resided at Egga, Muraji, Jebba, Leaba, Boussa, and Yelwa; the last-named town being within four days' march of Sokoto.

Whilst ascending the Niger, one cannot help being impressed with the variety of races that inhabit its banks. Down in the Delta, amongst the myriad creeks and for 150 miles or so up river, the short, curly-haired, thick-lipped negro is in sole possession. These people are of a fine type of build; fairly tall, the shoulders broad, and the muscles well developed. The women are remarkable, even among black women, for the long hanging breasts. The dress is not elaborate. The men, when not practically naked, wear a cloth round the waist, which falls below the knee, often to the ankles. The women also wear a cloth round the waist, but this seldom reaches to the knee. The ornaments consist of beads, armlets of bone, ivory, and copper, also necklaces of the same; a feather is often worn in the hair. These people are divided into tribes, but the tribes themselves are but subdivisions of greater nations, such as the Aro, Ejoh, Ibo, &c. Their food is chiefly fish, fruit, and yams. The dwellings on the banks consist of miserable tumble-down mud shanties, roofed with leaves. Inland, however, the houses are better built; those of the chiefs being pretty solid, and often extensive.

In the interior, in the depths of the great forests that cover the Delta districts, cannibals are to be found, and far more frequently than is generally credited at home. The people are also given to the offering up of sacrifices—human sacrifices—when there is no danger of discovery by the Government.

Southern Nigeria, which is to-day, roughly speaking, the negro division of Nigeria, is a vast plain, well watered, and covered with thick forest. To the north the land gradually rises, culminating in the rugged chain of hills on the southern boundary of Northern Nigeria. As the less wooded and more hilly country is reached, on the frontier of Northern and Southern Nigeria, the pure negro gives way to a less marked type, the lips being thinner and the nose not so flat.

On the right, or western bank above Idah, few, if any, villages are built on the river; the *Kukurukus*, the great dominating tribe on that side being a shy, non-fishing race. It is a race with which I have not come into close contact; but, judging from one or two individuals that I have met, they appear exceedingly wild; the hair is matted and hangs in knots round the head; the lips are not notably thick; but, if I remember rightly, the nose is flat. On the left bank, the *Igara* race predominates, up to its meeting with the great Bassa tribe on the banks of the lower Benué. These *Igaras* are an intelligent and, generally, peaceful race. The lips are thin, the nose fairly well formed, the hair curly and short, suggesting a cross of the Hausa with some negro tribe. Most of the *Igaras* are Mahomedans, I believe, but their Mahomedanism would be of a degraded kind, with a large leaven of paganism. The dress is more extensive than that of the peoples above mentioned, more cloth being worn; but I have an idea that this may be simply where the trading *Igaras* come into contact with the Hausas: I cannot say whether so much cloth is worn in the far interior.

In the case of both sexes the whole body is covered where I have observed them. I have not had occasion to study the language.

On the same bank of the river, and reaching up the Benué to a distance of about 150 miles, on the southern side of that great waterway, is to be found the great Bassa nation. This people was, I believe, originally driven across the river from the northern bank, by the Mahomedan raiding chieftains. Bassas, however, still inhabit the hills to the north, whence their enemies could not dislodge them. The type struck me as being low, as well as being in a very degraded state. They are not notably thick lipped, the hair is matted, the dress scanty. Yams seem to be the staple food. They are continually robbing traders, and think little of murder on the highway. Whence this race originally came it is hard to say. They were certainly driven out of the north by the Mahomedans, but from how far north I cannot say: the point would be an interesting one to enquire into.

I now come to *Lokoja*, the commercial centre of Northern Nigeria, and the largest Government settlement in the country. This town is situated on the right bank of the Niger, two or three miles above the point where the Benué enters it.

Lokoja is the cosmopolis of the Niger; Kano, perhaps, alone surpassing it in the Protectorate, as a meeting place of many nations:—Arabs, Fulahs, Beri-Beris, Hausas, Nupés, Kokandas, Yorubas, Igaras, Igbiras, and, here and there, a pagan family settled amongst all these Mahomedans. It offers an immense field to one interested in the races of the Soudan.

Lokoja market place has always had for me a fascination. There one sees merchants from all parts of the Soudan, selling their wares; cloth, both of European and native make; gowns and various articles of dress, beads, necklaces of agate, coral, different varieties of stones, glass, &c., &c.; rings, bracelets, armlets (generally of glass or metal, silver and copper, more particularly); lead-ore, which, when powdered, forms a necessary part of the Mahomedan lady's toilet, being used to shade the eyes by powdering the lower lids; broad slabs of so-called "potash," taken from deposits in river beds, and also, I believe, from Lake Tchad; food stuffs of all kinds in use among the natives of those parts, such as yams, ground-nuts, guinea-corn, and flour from the last made up in little pattes enclosed in moistened leaves, after being first boiled.

Then the native butchers—quite a feature of the great markets of the Soudan. The meat is laid out in gory splendour, lining quite half an alleyway; the owners, sitting in grass-mat stalls behind, cry their sales lustily. The animal—bullock, sheep, or goat—that supplies the meat, is killed in the market place, in front of the stalls, where the meat is sold.

The variety of dress, the crowd of moving figures, the many colours—white, however, predominating—makes a scene that stamps itself upon the memory. Lokoja market can be heard from afar, as a dull murmur, which becomes pretty deafening when near at hand.

The dress worn here, among the men, is the long gown, with its immense wide sleeves, over which another gown is often worn—and beneath this the enormous trousers, common to all Arab and Mahomedan peoples. On the head the *rawani*, or cloth wound round in turban shape, or the Hausa cap, on the principle of the fez, rather long in the crown. The Nupés wear a closer-fitting cap, with side flaps, which they keep turned up.

The women's dress is exceedingly simple and graceful. A long cloth, secured by a fold under the arm, hangs from above the breasts to below the ankles, the shoulders and arms being left bare. Beneath this is worn the *patari*, a cloth tied round the waist, and reaching to the knee. Over all, a cloth of a different colour is fastened round the waist, reaching to well below the knee. From the head a long veil of thin substance hangs down behind, being generally caught up on one side, and drawn across the face, and thrown over the opposite shoulder.

Both the women and the men are very erect and often tall. The women, who do most of the trading, carry their purchases on their heads, unless, of course, their slaves or hired servants do so. This habit of carrying everything, even the lightest, on the head, gives the women an exceptionally good carriage.

The houses of Lokoja are well built of sun-dried mud bricks. Some are fairly extensive, and all are thatched. They vary in shape, some being round, some square or oblong. The roofs of some of the better class houses are very lofty. A Lokoja native house has never more than the ground floor. The ceiling is generally coated sufficiently thickly with mud, stamped hard, to avoid the possibility of fire entering, in case the roof might be burnt. Some very elementary attempts at decoration are sometimes made; but these are apparently very poor imitations of Arab designs seen further inland.

A wonderful feature of Lokoja is its beach. This is lined with hundreds of canoes of all sizes, from the great Nupé dug-out of perhaps 60 feet in length, to the smaller Kokando craft which sometimes do not measure 10 feet in length.

On outside market-days, these canoes, full of traders, form quite a great fleet as they drop down river to the town of Igbebi, on the opposite bank, below the mouth of the Benué. This town has a great market for foodstuffs and has an Igbara population.

On this part of the Niger the canoe population forms a distinct, or, rather, two distinct tribes: the *Kedda* and the *Kokanda*. I am not certain as to the origin of these tribes; but I believe that they are a branch of the Nupé race. Their language certainly differs from the ordinary Nupé tongue, but may, perhaps, be only a very distinctive dialect of it. The men are splendidly made, the muscular development being often marvellous. The method of propulsion used by the Kokandas is the paddle and light pole; the canoes being round-bottomed and tapering at each end, the bow to a sharp point. The Keddas use poles, as their canoes are not only flat-bottomed but also squared at both ends—rough punts, in fact. A huge paddle takes the place of a rudder when necessary. As a rule, in the Kokanda canoes, a knot of paddlers sit in the bow, another in the stern. The steersman stands erect to use his great paddle, whilst in the bow another generally directs operations and sings to the rowers, who paddle in unison. These canoes are very swift. The slow-moving, cargo-carrying (*Kedda*) Nupé canoes are generally manned by three men, two in the bow and one in the stern.

From Lokoja to Jebba, the towns are solely Nupé and are smaller models of Lokoja. The people are haughty and the men decidedly lazy. The women do all the work, including marketing and general trading. Their religion compels cleanliness, but the lower class avoid it as much as they possibly can, consistently with their religious laws.

The type is negroid, the lips are thickish, and the hair woolly. The capital of the Nupé kingdom is Bida. It is a large walled town, the buildings being very good and extensive, I understand. It is surrounded by a great wall. Before the British occupation the population was probably 50,000. The ruling families are Fulahs.

The *Hausas*, who come down from the interior in caravans, are quite distinct from all the riparian races. The features are good, the lips more full than thick—often, in fact, being quite thin—the nose is well formed, and, although the hair is woolly, the whole shape of the head denotes a higher type.

The men and the women are often slightly built, although, as often as not, tall. The race is vigorous, the trading instinct being strongly developed. In fact, the Hausa is the great trader of the Soudan. The Hausa also makes a good soldier, being plucky and full of dash. Both the men and women are hard workers. The men do most of the trading, whilst the women see to the household duties, including marketing.

These duties are not so simple as might be imagined. They include the grinding of corn, which is done in the following manner over the whole of the Niger Soudan:—The corn is placed in a large receptacle made from a round block of wood, hollowed out and roughly shaped like an urn, open at the top, and with a broad pedestal at the base.

One or two women, sometimes three, each with a long pounder, then start to pound the corn until the husk is to a great extent removed. The corn, after being separated from the chaff by winnowing, is then placed on a broad, flat stone, and a woman grinds it into flour by forcing another round stone up and down the broader slab. When this process is completed the winnowing is resorted to again. This is done by placing the flour on a tray and deftly throwing it into the air, in such a manner that the flour alone falls back on the tray, the chaff being carried beyond the edge. All this time the worker is singing.

Within the Niger territories, among the noted Hausa towns, are *Kano*, the great commercial centre; *Sokoto*, the "holy city" of the Western Soudan, and the residence of the Sultan; *Katsina*, the centre of learning; and *Zaria*.

The Hausa language is the most extensively used in the whole of the Soudan, from the Mediterranean to the equator, being the commercial language *par excellence*. The literature, consisting mainly of songs, fables, and traditional and historical events, is fairly extensive, the characters in use being the Arabic.

After the Arab, the *Fulah* race is the highest of all races of the Niger Soudan. The features are fine and regular, the nose being very prominent, and generally straight and in a line with the forehead. The lips are thin and the mouth well-shaped; the upper lip is generally short, with a marked upward curve. The eyes are large and dark, the lashes long, and the eyebrows slightly arched. The hair is quite straight. I was often greatly struck by the extraordinary resemblance in the features of the *Fulah*, to the representations that I have seen of the well-known Egyptian type.

This race is the ruling Mahomedan power in Northern Nigeria. Whence the race originated is by no means certain. A French officer once stated to me that he was of the opinion that the race came across from Egypt, gradually spreading, by conquest, over the whole of the Soudan to the Atlantic, following the Niger basin by Timbuctu and Futa Jalon to Senegal. Another gentleman thought that the race was connected with the Somalis of the eastern littoral, and confirmed—what I thought was a fable, and learnt from the *Fulahs* themselves—that somewhere north of the Benué, amongst the hills between that river and Lake Tchad, exists a tribe of pagan *Fulahs*. These people, nearly white in colour, appear to live in the wildest state of ignorance and exclusiveness. They wear no clothes whatever. The Mahomedan *Fulahs* believe this tribe to be the parent of the whole race, and protect them.

The *Fulahs* are incorrigible slave raiders. The language is soft and musical. The literature is extensive, I believe; Arabic characters are used. The *Fulahs* have now and then struck me as being more musical than other races I have met, with the exception of the negro, whose wild, harmonious chants are wonderful.

The *Fulah* is a great cattle breeder, a section of the people migrating with the enormous herds at every season.

When at Boussa I came in contact with the *Borgus*. Although now situated on the right bank of the Niger, this pagan race appears to have crossed from the eastern bank, probably being forced to do so by the Mahomedan invasion. They did not strike me favourably as a race.

Another race, however, that interested me, whilst I was residing on the northern bend of the "Boucle du Niger," was that which inhabits the islands in those parts. This type is quite distinct. They are very shy, speaking a language not allied to any that I know of. Their physique is splendid. Their history, I should think, would be interesting to trace, were it possible.

The native of the Niger—generally speaking, and, of course, excepting the Hausa—is not a noted trader. This is a pity, as the natural advantages are great.

Almost the only manufactures are cloth, mineral dyes, a primitive pottery, beads, and some metal work. The cloth which is manufactured is exceedingly good, though

rather coarse. The dyes are excellent, and fast. Great taste is shown by the Fulah and Hausa women in their choice of colours in dress.

I have purposely refrained from discussing many of the races in the Benué basin and Bornu; as I want, as I said, simply to give you an idea of my general impressions of what I have actually seen on the Niger.

E. F. MARTIN.

Africa, North.

Bertholon: Myres.

Note on the Modern Pot Fabrics of Tunisia: By Dr. Bertholon, 47
Local Correspondent of the Anthropological Institute; communicated by
J. L. Myres, M.A., F.S.A.

In a paper contributed to the *Journal of the Anthropological Institute*, XXXII., p. 262 ff., *On the History of Kabyle Pottery*, I ventured to propound some questions on which further evidence seemed to be required. Of these questions, No. 3 ran as follows:—"Search should be made in Eastern Algeria and in Khoumiria for traces of former or recent extensions eastward, of fabrics analogous to those of Kabylia."

To this question the Institute's distinguished Local Correspondent for Tunisia, Dr. Bertholon, returned the following answer, in a letter dated 8th September 1902:—"At the present time they do not find analogous fabrics in Eastern Barbary. The Kabyle type of pottery is confined to Kabylia only. The other regions of North Africa have each their own type of pottery."

"*Hand-made Pottery.*—(a.) The Khoumir people make a primitive red-faced pottery. The ornamentation consists of undulating lines (*cf. Journ. Anthr. Inst.*, XXXII., Pl. xx. 22), and other more complicated linear designs as in my Fig. 1.

"These designs are analogous to the Tunisian tattooings. The Khoumir pottery is the only hand-made pottery in this part of Africa decorated with some care. It is rudely done. You will find in the *Bulletin de la Société d'Anthropologie de Paris*, 7th July, 1898, p. 318, some details about that fabric, which I supplied to M. Arsène Dumont.

"(b.) In the Tunisian country, even in the suburbs of Tunis, people use hand-made pottery. This pottery is red-faced, rude, and primitively ornamented. Most frequently the potter—who is a woman—traces on the paste of the fresh clay some lines with her finger dipped in henna. Fig. 2 is a specimen of this 'art.'

"(c.) In the Aurès, people make a yellow-grey hand-made pottery. The ornamentation is traced with the hand: it is red, irregular and incoherent. It is a more primitive stage of ornamentation than that in Khoumiria; and is comparable with

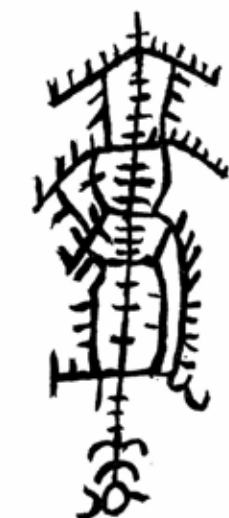


FIG. 1.—KHOUMIR POTTERY: PAINTING ON THE BOTTOM OF A VASE.

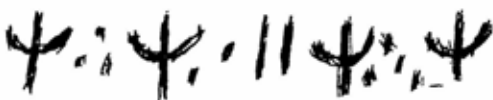


FIG. 2.

TUNISIAN POTTERY: PAINTED ORNAMENT.

"that of the Tunisian country."

For examples of the Aurès fabric, compare Randall-MacIver and Wilkin, *Libyan Notes*, 1901, Pl. iv.

"In these regions, as well as in Kabylia, the types of ornamentation are confined to certain families. Every family has its peculiar drawing; and from mother to daughter, from age to age, does always the same drawing without changing a single line.

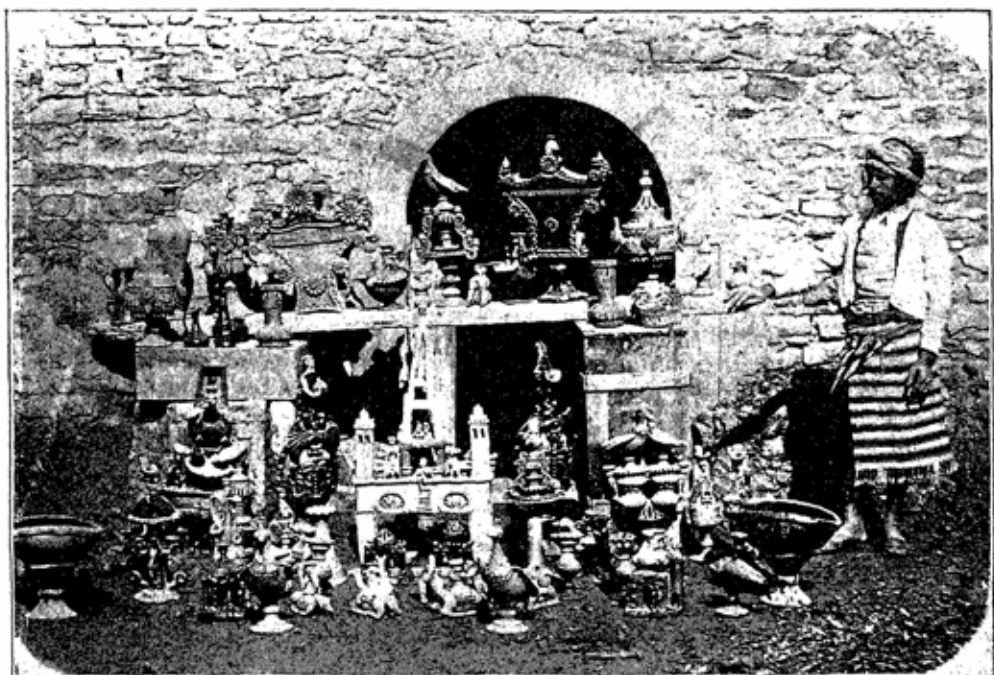


FIG. 3.—TYPES OF NABOUL POTTERY.



FIG. 4.—POTTERY FROM GERBA AND TUNIS.

" *Wheel-made Pottery.*—This pottery is used in the Tunisian towns. It is made by the men. There are two principal types of this pottery :—

" (a.) The first is represented by the fabrics of Naboul : I send you a photograph of some types (Fig. 3). Some of the vessels are made of baked clay ; others are varnished. They are yellow or green. The ornamentation is composed of incised design. As other fabrics of this type we have the potteries of Tunis, Beja, and Sousse [Sûs]. This pottery is less artistic. At Tunis the clay vessels are ornamented in black with caroub juice. The decoration is geometrical : it proceeds from the same motives as the Kabyle pottery (*Journ. Anthr. Inst.*, XXXII., Pl. xx.) ; but the disposition of the designs is different.

" (b.) The other group of wheel-made pottery is that of the isle of Gerba. Here they make *pithoi* and vessels of great size. The ornamentation is incised. I append the pages of my work, *Exploration Anthropologique*

"de l'Île de Gerba (*L'Anthropologie*, VIII. (1897), p. 577) which treat of Gerbian "ceramic." Fig. 4, from a photograph enclosed by Dr. Bertholon in his communication, represents a potter's shop stocked with the common types of the wheel-made pottery of Gerba and Tunis.

I append an abstract of Dr. Bertholon's observations as stated in the work to which he refers. The ceramic industry of Gerba [Jerba] is confined to the villages of Kallala and Sédouikèche [Sedwikesch] in the southern part of the island. It is carried on by the men in large numbers. They use the clay of the place of manufacture and a primitive footdriven wheel, and model the vessels with their fingers and a small scraper; whereas everywhere else in North Africa, except at Bejū, Nabeul, and Sousse [Sūs] the pottery is made by the women, and by hand.

The forms of the vessels, as appear from the examples given on p. 55 of Dr. Bertholon's paper, follow either the pointed and long-necked amphore and other common types of Græco-Roman pottery, or else the swollen trumpet-necked Oriental forms which were introduced at or after the Arab conquest. They thus fall exactly into line with the "Græco-Roman" and "Arab" styles of Tripolitan pottery immediately to the eastward of Gerba, which are described and figured in MAN, 1901. 83. Characteristic of Gerba are the large pointed amphora called *goula*, which are in wide demand, the perforated *kouskous*-platters, and a sort of clay drum called *darbouka*, which is shaped like the common Arab water-bottle (*gargoulette*), but has its base replaced by a stretched skin.

The ornament is incised in the wet clay and is very simple, as will be seen from Fig. 5, repeated from Fig. 13 of Dr. Bertholon's paper.

The kilns are mainly composed of large jars held together by a mortar of lime and clay, which form a sort of air chamber between the inside and the outside of the kiln, and serve to retain the heat; only round the door is there a small area of ordinary masonry. The roof of the kiln is a low dome of clay, which itself resembles a segment of a great jar. These kilns will hold about 150 large jars; but the firing is uneven, and a good many jars are spoiled in each batch.

At the time of Dr. Bertholon's paper there existed 129 potteries in Gerba, almost all in the two villages already mentioned; but some years previously the number was 144, and there is apparently some reason to fear that this interesting fabric may be already in its last decline.



FIG. 5.—ORNAMENTS OF THE POTTERY OF GERBA.

JOHN L. MYRES.

Archæology.

Some Notes on Orientation. By A. I. Lewis, F.C.A., Treasurer of the Anthropological Institute.

Lewis.

48

A few months ago Dr. Rivers brought before another Society some cases in which certain people spoke of their right or left sides as being their north, south, east, or west sides, and he invited any information or suggestions tending to explain the conclusion deduced by him that in Welsh and other languages there must have "gradually come" about a fixed association between south and right." It is only the fact of the question having been raised in this manner that emboldens me to publish these rather fragmentary memoranda which I have collected from time to time; but, in order that their bearing on the subject may be at once understood, I may say that I think the reason of the

association between south and right in Welsh and other languages is that the people who spoke those languages, when that association arose, were accustomed, for some ceremonial purpose or other, to turn to the east on certain occasions, when their right sides would, of course, become their south sides.

In the present day, indeed, nearly all Anglican church-goers do so turn to the east when the creeds are said or sung, and it may be that the origin of the association mentioned by Dr. Rivers goes no further back than does the origin of this present day custom; yet it may well go further, though by what exact channel we know not.

The Greeks looked on omens that appeared to the right as prosperous; but the Romans, on the contrary, regarded those that appeared to the left as being fortunate. Why was this? It was because, while both considered the north-east to be the favourable quarter, the Greeks in their augural ceremonies turned to the north, so that the north-east was on their right hand, but the Romans turned to the east, so that the north-east was on their left hand. Adams, in his *Roman Antiquities*, says that, according to Livy and Dionysius, the Roman augur turned to the east, but that Varro makes him look to the south. The southern facing would, however, seem to have been derived from the Etrurians, for Pliny remarks that thunder on the left is lucky because the east is on the left side of the heavens; and that the Etrurians divided the heavens into sixteen parts, the first great division of four being from north to east, the second from east to south, the third from south to west, and the fourth and most unpropitious from west to north; the eight parts on the east being called the left, and the eight parts on the west being called the right side of the heavens; which could only be the case to those who were facing south. Whether, however, the Romans faced the east and the rising sun, or the south and the mid-day sun, the left and east or north-east side was for them the lucky one.

Other peoples have, however, taken different views as to the quarter of the heavens from which good things might be expected to come, and this has affected their opinion as to the lucky character of right or left.

Colonel Conder, speaking of an Altaic hieroglyph—a right hand—says: “I think its meaning is possibly ‘right,’ that is auspicious or southern, as contrasted with left—evil or northern—an idea well known in Semitic languages, and connected with the words front for east and back for west. The origin of the idea (proper to the northern hemisphere only) is that the mid-day is the south, the north is the region of night by which the sun returns east. It is a general idea among Asiatics that the north is the region of night and of demons, perhaps showing a race which came from the land of darkness, where the nights in winter were very long. This is the simple and evident reason why a worshipper facing the rising sun regarded the right hand as propitious.” That is Colonel Conder’s explanation, and Landis also says that the Coreans consider that the north is the region of darkness and the abode of the shades, and that the Coreans on funeral occasions make a diagram of the “great bear”—seven stars on a board covered with black silk. A certain sect in Chaldea is also said to regard the pole-star as the abode of the spirits of its deceased members.

But Asia is a large place, with plenty of room in it for a variety of opinions, and Mr. E. H. Man has told us that the Andamanese consider the north-east to be the quarter in which the connection between heaven and earth exists, and call the north-east wind the “god-wind.” He thought this was because Burmah, which was the nearest land, was in that direction. At some Hindu marriages the bride and bridegroom walk hand in hand round a sacred fire and then take seven steps towards the north-east. Major Gerini also says that in Siam the royal chair is always disposed so as to face the north. This custom, he says, had its origin in the fact that the north is regarded among the nations of India and Indo-China as the most auspicious point of the compass, and that towards which the ground rises, culminating in the Meru mountain; next to the north in order of

auspiciousness comes the east; the preference is, however, among Hindus given to the east, which, says Major Gerini, is considered to be the quarter of the gods, while the north is regarded as the quarter of man. Professor Sayce has told us that "in early Sumerian days the heaven was believed to rest on the peak of the mountain of the world in the far north-east, where the gods had their habitations." The Akkadians (according to Mr. R. Brown, F.S.A.), also called the north-east "the cardinal point of mountains," while the Assyrians called it "the rising," meaning, I presume, the point of sunrise. In the *Journal of the Anthropological Institute* (Vol. XXXI., p. 107), Mr. W. G. Sumner and M. Sieroshevski record that the Yakuts of North-east Siberia, for purposes of divination, "draw two concentric rings on the table, and mark the north, north-east, east, south-east, south, south-west, and west points on the exterior circle. The northern point is called the chief road; the north-eastern point, being the point of the summer solstice, is the road for getting horned cattle; the east is the road of good luck; the south-east, the winter solstice, is the road for obtaining horses; the south is the chief road; the south-west is the road into the woods, and means death; the west is the dark road of the devils."

Taking these various instances together it would seem that in all cases the quarters from which sunlight and divine influences generally come have been regarded as the fortunate quarters, and that the right or left sides have been considered lucky or otherwise and have been identified with this or that point of the heavens by reason of the position taken up by the different peoples in performing their respective rites and ceremonies.

It would be only natural to suppose that, if we could disentangle the various lines of thought about these matters, we might find out where this or that custom and the people by whom it was practised came from. If, for instance, we find in one stone circle apparent suggestions of sun-worship or observance, and in another circle apparent suggestions of northern-star-worship or observance, we might be tempted to ascribe the one to an influence coming from Chaldea and the other to an influence coming from Corea, or some other part of Asia. But the matter becomes more complicated when we find suggestions of both sun and star worship in the same circle or group of circles; then the explanation given by Sir Norman Lockyer of similar arrangements in Egyptian temples comes to our aid; that is, that the priests who officiated in the temple watched the circumpolar stars in order to know when to prepare to welcome the rising sun. Yet there seems to have been a cult of northern-star-worship in some places which need not have conflicted with sun-worship, but may have been carried on side by side with it, and by the same people. Such a conjunction was noticed by Mr. Swann at the great Zimbabwe, and it may also be traced in the arrangement of the stone circles on Bodmin Moor and at Stanton Drew.

Lastly, and with some bearing on the question of right and left, there is a sort of symbolism of three and one—a kind of trinity and unity—which I have observed in connection with some of our stone circles. I first noticed it at a small circle in the Isle of Man, where there is an entrance formed by two earthen banks winding round outside the north-eastern quadrant of it; at the end of the bank on the left on entering was one large stone; at the end of the bank on the right were three large stones. Some years afterwards I found that the Great Orme and two other hills made a trinity to the north-east of the circle on Penmaenmawr; and at Mitchellsfold circle in Shropshire I found a single high hill to the north-east, beyond which at an equal distance in the same line was another circle, and beyond that, still in the same direction, a group of three low hills. The well-known circle near Keswick has an apparently triple summit to the north-east and a single one of equal height to the north-west. At Swinside, also in Cumberland, there is a circle with a high hill to the south-west and three low ones to the north-east. At the Stannon circle, on Bodmin Moor, Rough Tor, in a north-easterly direction, is the

most notable hill in sight, but, looking due east, three tips of Brown Willy, the highest hill in Cornwall, are visible over a low intervening ridge.

In the Scottish islands the circles at Callernish and at Brogar both have three hills to the north-east. In all these cases the three hills are connected with the east or north-east, and the one hill, except at Stannon, with the north-west or south-west, so that anyone facing north would have the three on his right and the one on his left, as in the case of the stones at the entrance to the avenue of the circle in the Isle of Man. At Stannon also the three points are on the right and the one peak on the left of anyone looking at them. I have no immediate explanation to offer of this circumstance, but should be glad to hear any suggestions about it.

A. L. LEWIS.

REVIEWS.

Craniology.

Turner.

A Contribution to the Craniology of the People of Scotland. Part I. Anatomical. By Sir William Turner, K.C.B., D.C.L., F.R.S. Trans. Roy. Soc., **49** Edin., Vol. XL, Part III. Edinburgh: R. Grant, 1903. 31 x 22 cm. Pp. 547-613. With five plates. Price 7s.

It was with a feeling of surprise that the reviewer learned from the opening pages of this memoir that practically nothing is known of the anatomy of the people that inhabit the ancient kingdom of Scotland. Of all the kingdoms of the world one would expect that of the Scots to be, anatomically speaking, the best known, for no other, in proportion to its population, has produced so many professional students of the human body. The "blacksmith's mare is the worst shod," they say, and it is probably on corresponding grounds that the Scots have been so neglected. This excellent and valuable memoir is the first systematic investigation of the shape, size, and formation of Scotch crania. Altogether the memoir deals with 176 skulls—117 of males and 59 of females—a collection which, after many years of persistent asking and patient waiting, Sir William Turner has brought together in the Anatomical Museum of Edinburgh University. For the greater part, the skulls were unearthed in the graveyards of Fife, of the Lothians, and Renfrew, but representative specimens have been obtained from many other Scotch counties, although hardly in sufficient numbers to afford safe ground for inference.

By reason of the many and extensive contributions which he has made, Sir William Turner stands easily first among British craniologists. It is clear from this monograph that his faith in the utility of the craniometrical methods, initiated by Retzius, and developed by Broca, Flower, and himself, is not a whit abated. Because of his belief, his long experience, and great ability, he is the man above all others in this country from whom a younger race of workers would welcome a pronouncement as to the exact goal on which craniologists are now moving. The craniometrical methods which he so clearly expounds have given rise to an alarming tide of literature. A younger generation of workers, which in their day will be passing custodians of this great heirloom, look at it askance because they cannot see how the elaborate and cumbersome methods at present in use are to help them in tracing the histories of the various races, or to give any rational account of how the numerous and diverse types of humanity came to be scattered as they are over the face of the earth.

Sir William Turner, so unlike many authors who publish contributions to craniology, has a definite aim in view. His aim is, as one may infer from the subject to be dealt with in Part II. of this memoir, to see what relationship there is between the skulls of the present day Scots and those of the prehistoric British races, and to those of the inhabitants of Western Europe. In short, his aim is to write a craniological history of the inhabitants of Scotland.

It is interesting to turn at once to the various characters of the skull which, from his wide experience, he has come to regard as worthy of attention, observation, and record. When these characters are classified it will be found that of the sixty or more points noted in each skull, over thirty of them relate to the size or shape of the cranial cavity—that is, are points dealing with the skull as a brain carrier—the remaining thirty deal with the facial part of the skull; these may be separated into those dealing with the skull as part of the apparatus of mastication, and a few dealing with the sense capsules, such as the orbit, or the nasal cavity, a part of the respiratory passage as well as sense capsule. The outstanding feature of every measurement made or structural arrangement observed is that it has no relationship to the use of the parts during the life of the individual; arbitrary fixed points are taken, measurements made, and when the results are added up they give definite results which have no physiological or functional meaning, with the possible exception of the cranial capacity. The advantage of the modern craniological measurements is that they are capable of development to any extent, and to the nine indices employed by Sir William Turner it would be possible to add one hundred more employed by other craniologists; and, at short notice, another hundred equally useful could be invented. It is to this aspect of craniology one would like to call Sir William Turner's attention, and to have his fully matured opinion as to what factors go to constitute a useful index, and what profitable and progressive knowledge we may hope to obtain by the use of such indices.

One cannot help thinking that the methods employed in craniology are ineffective and clumsy. Take, for example, Sir William Turner's measurements of the "cranial box." First, there is the cubic capacity; that varies with the size of the individual and represents the space filled by brain, blood, nerves, and membranes. Then there are seven diameters taken of the box which contained these structures, five of its width, one of its length, and one of its height; the measurements being only roughly correct as they are taken on the outer and not the inner aspect of the cranial walls. The circumference of the cranial chamber is taken in four directions, and lastly, eight other measurements (radii) are taken. Surely that is a clumsy way of ascertaining the shape of the brain, for all the evidence we have at our disposal goes to show that the brain is the determining factor; the skull in its hands is passive and plastic. This criticism is made in no carping spirit; the whole matter grows more serious as time, money, and brains are expended in a direction which seems to lead to a minimum of useful, profitable knowledge for a maximum work.

To me the whole nomenclature of modern craniology is barbaric. Take this list: *tapeinocephalic*, *chamacephalic*, *metriocephalic*, *leptorhine*, *dolichouranic*, *brachyuranic*, *hypebrachyuranic*, *mesuranic*, *leptoproscopic*, *hypsistenocephalic*, *platychamacephalic*. One can understand the disappointment of ardent, able young men who want to study the species to which they belong, when after toiling through the difficulties of such a vocabulary they find that although the words have definite meanings, the conditions which they indicate are of no real signification. These words are fences which the most enthusiastic recruit may well refuse to take, and if he does take them he will turn again in disgust, because he will find they are words and nothing more.

But after all it is the result and not the method that is the chief end, and, turning to the original monograph, these may be summarised briefly. They fall into two groups: first, results as to the distribution of long-headed or short-headed types of people in Scotland, and secondly, the points in which the skulls of Scots of whatever type differ from those of aboriginal people which Sir William Turner has examined and recorded in a number of valuable memoirs.

When Sir William Turner's observations on the shape of the Scottish skulls are transferred to a map of Scotland so as to obtain a graphic representation, it is seen that those derived from the graveyards of Fife are shortest and broadest, and those from Argyll

and Perth are narrowest and longest. In Fifeshire the breadth of the skulls was, on an average, 81 per cent. of the length, but the proportion varied from 75 to 85 per cent. in the 17 male skulls examined; in the three Lothians the average breadth varied from 76 to 79 per cent. of the length, but in some cases it was as low as 69, and in others as high as 86. An enquiry into the relations indicated by the other measurements and indices prepared by Sir William Turner gives no definite result, and, as far as the reviewer can see, does not lend any assistance to the problem of the origin and relationship of the Scottish people.

The comparison instituted between Scottish and aboriginal, and, in some cases, Asiatic skulls, has been the means of eliciting certain interesting observations. Only some of these may be mentioned here, for it is impossible to surpass in clearness of statement the account given by Sir William Turner. Almost without exception in the Scottish skulls, whether brachycephalic or dolichocephalic, the breadth of the skull was found to be greater than the height; this may also be the case in brachycephalic skulls of aboriginals, but in dolichocephalic skulls of these races the height is nearly always greater than the breadth. The frontal compartment of the skull is relatively longer than the occipital in Scottish skulls while the opposite is true in aboriginals; a metopic suture is found in 13 per cent. of Scottish skulls, but it is rarely seen in the aboriginal; the squamo-frontal suture occurs frequently in the skulls of aboriginal races, but rarely in the skulls of Europeans.

Part II. of this memoir, in which the relationship between the present day Scots and prehistoric and European races is to be dealt with, will be looked for with much interest.

A. KEITH.

Africa, West.

Alldridge.

The Sherbro and its Hinterland. By J. T. Alldridge. London: Macmillan. 1901, pp. xvi + 356. 23 x 15 cm. Price 15s.

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This is one of the most interesting books which has been published on West Africa, or indeed on any part of the continent. Its illustrations alone are worth far more than the price asked for the book. The writer has spent 30 years as a Government official, and has travelled no less than 6,000 miles, in the south-eastern portion of the colony of Sierra Leone. He has studied, with considerable care, not only the people on the coast but those in the far interior, who have seldom been visited by Europeans, and whose customs and traditions are therefore of special interest from an anthropological point of view. He begins by describing the natural products of the country and has many suggestions to make as to how its resources might be profitably developed, if only English traders were prepared to show a little more enterprise. He then passes on to what is the most interesting part of the book, and describes at considerable length the nature of the secret societies which exercise so great an influence over the Mendi people in the interior. A further chapter gives an account of some of the ordeals and charms belonging to the same people. Although one or two of these societies, such as the Leopard society, exist chiefly for the purpose of murder and plunder; others, such as the Bundu, exert an influence over the majority of the people which is distinctly good. A large proportion of the girls of the country are initiated into this Bundu when they are between 9 and 10. The rites of initiation are performed with the utmost secrecy in the forest, and the Bundu medicine with which they are then supplied, and which is of the nature of a charm, is held in such awe by the men that any girl belonging to this society can walk where she pleases, unattended, and in perfect security. The Bundu society thus tends to preserve the chastity of the girls until they are of marriageable age to an extent which seems little short of ideal. Another society, called the Poro, is confined as a rule to men, though in one or two curious cases a woman may become a member and is ever afterwards regarded as half a man and half

a woman and subject to the restrictions and possessed of the privileges of both sexes. The rites of initiation are very elaborate and bring in a handsome income to the chiefs of the society. These chiefs possess the power of placing a ban, which is also called Poro, upon any article of production or trade, similar to that which has caused so much trouble in the Niger delta. In one instance they interfered with the export of palm oil for several years. Happily the English Government, which has recently declared a protectorate over the Mendi country, has been able to prevent the exercise of this embargo.

The chapter on ordeals and charms might well be enlarged, though the information given is of considerable value. The curious thing about the charms and ordeals found, both in the Mendi country and other parts of Central Africa, is not so much their novelty but the similarity they possess to charms and ordeals which existed at the very dawn of written history. The earliest account which we have of an ordeal is that given in Numbers, v. 17 ff., where a woman charged with having being unfaithful is directed to drink bitter water mixed with the dust of the tabernacle floor. It was believed by the Israelites that, in the event of her being guilty, her belly would swell and her thigh fall away. This account could be paralleled over and over again by the ordeals now in use in Central Africa. Again, if we can judge by the cuneiform tablets which have been deciphered, it would seem doubtful whether even the Mendi people, whom Mr. Alldridge describes as bound hand and foot with their charms intended to ward off evil spirits, have peopled their world more completely with demons and spirits than did the ancient Babylonians and Assyrians. The difficulty which will be experienced by missionaries in eradicating from the native mind a belief in the power of their magicians is well illustrated by a story which Mr. Alldridge tells of a native English-speaking Christian on whom a fetish ban had been placed during the Mendi rising in order to prevent his giving information to the English authorities. After the rising had been put down the man implored the English Government to induce the magician to release him from the power of this charm as he felt convinced that no one else could release him, and that if he were not released he would certainly die.

We cannot here enter into any further details given in the book, but we would cordially recommend it to all who are interested in native African customs. The writer has the advantage over Miss Kingsley, with whose books his will naturally be compared, in that he has spent many years amongst the people he describes and knows at least something of their language.

C. H. ROBINSON.

Queensland: Ethnology.

Roth.

Food: Its Search, Capture, and Preparation. By Walter E. Roth, B.A., M.R.C.S., &c. Brisbane: Government Printer, Queensland, 1901. 32 x 21 cm. 51
31 pp. with three plates.

Dr. Roth's name on the title-page of any publication upon the ethnology of Queensland is quite a sufficient guarantee of its value.

The report under review was issued in 1901 by the Government of Queensland and is an exhaustive treatise on this special subject. It is, in fact, a further supplement to Dr. Roth's well-known work, *Ethnological Studies*, issued in 1897. No man has taken greater advantages of his opportunities of studying the aborigines than has Dr. Roth; first as surgeon to the Boulia, Cloncurry, and Normanton hospitals, and since then for some years as protector of aborigines.

The report is divided into 39 sections, commencing with the hours of meals and the preparation of food, followed by a list of edible plants, some 240 in all: then the search for insects, crustaceans and molluscs; of the latter form of food there are 93 different species, the larger majority of which are roasted in the ashes, a few only being eaten raw.

With regard to this form of food Dr. Roth mentions (p. 7) having seen "but few "kitchen middens, a fact which may be due to the continual shifting of camp."

In the taking of fish there are no less than 14 different methods, and it is noticeable that the aboriginals of the coast in the Tully River district employ the sucking-fish (*Remora*) "as a guide for spearing and harpooning fish as well as turtle and dugong." This mode of fishing is also mentioned by Dr. Haddon as being employed in the Torres Straits islands (*Journ. Anthr. Inst.*, Vol. XIX., p. 349). This, together with the fact that among the aboriginals of this district are to be found the use of the outrigger canoe and bamboo tobacco pipe, would lead us to suppose that they have at some time been influenced from this important group of islands.

In the poisoning of fish—an important mode of capture—there are no less than 22 different species of plants which provide the necessary product.

Birds and animals are hunted, decoyed, and trapped, and from the number of different species and the natives' "cuteness" as sportsmen, their larder must, as a rule, have been well supplied, but there were times of scarcity when cannibalism was resorted to throughout the whole of north-west Queensland; but in no case, as far as Dr. Roth has been able to gather reliable information, has any adult, male or female, been killed "for the sole purpose of procuring a repast or of acquiring any qualities of the deceased; human beings have only been eaten when they have died suddenly and in good condition."

The report concludes with the use of narcotics, such as piturri, tobacco, and opium. The former is obtained by barter from the Carlo district on the south Australian border in exchange for spears, boomerangs, &c., an important factor in the distribution of weapons in this part of the world.

Dr. Roth says, "There appears to be a great craving for piturri, as amongst Europeans for alcohol, not for the purpose of exciting their courage or of working them up to fighting pitch, but to produce a voluptuous dreamy sensation." It is not difficult, therefore, with the introduction of the Chinaman to find that "opium is exerting a more deleterious influence on the aboriginals than alcohol," as in their natural state they only "sweetened their drinking water with various blossoms, never allowing them to undergo fermentation."

J. E.-P.

Pacific.

Thomson.

Savage Island. An Account of a Sojourn in Niue and Tonga. By Basil C. Thomson. London: Murray, 1902. 21 x 15 cm. pp. viii + 234. Price 7s. 6d. net. **52**

Captain Cook's erroneous opinion of the natives of Niue and the name he gave the island have been the main cause in keeping it for so long almost a *terra incognita*. Little or nothing has been written about it, and the above work will therefore be a very welcome addition to our scanty knowledge of its inhabitants, more especially coming, as it does, from the author of that interesting work, *The Diversions of a Prime Minister*, to which it forms a most excellent sequel. The publication of this book is another of those curious coincidences that two men resident at opposite ends of the world should have been able almost at the same time to add so materially to our knowledge of this small island.

Mr. Basil Thomson went to the Pacific in 1900, in the name of the Queen-Empress to negotiate a British Protectorate, arranged under the Samoan Convention of 1899, and for this purpose visited both Savage Island and the Tongan Group, and the results of this expedition are regarded in a most interesting way.

In 1901 Mr. Percy Smith, a New Zealand Government official was sent by the Governor of that colony "to introduce a form of government" after the annexation of Niue to New Zealand by proclamation made by H.R.H. the Duke of Cornwall and York on the 11th of June 1901. Mr. Percy Smith, after a four months' residence, has recorded his experiences in the *Journal of the Polynesian Soc.*, Vol. XI.

Mr. Basil Thomson very clearly shows how mistaken was Captain Cook as to the ferocity of the islanders; they are so only in appearance; "the battle," he says, "was not to the strong, but to the ugly; your object was not to crack your opponent's skull, but to frighten him off the field, and if your grimaces and howls failed to make him run, you knew that he meant business and you ran away yourself." This being so, it is better that the name given to the island by Captain Cook should be allowed to drop in favour of the native name of Niué (pronounced, as Mr. Percy Smith tells us, *Nee-oo-way*, with a strong accent on the *way*).

Mr. Thomson has a kind word to say of the self-denying labours of the London Missionary Society, which in this remote island sets an example to the world.

With regard to the style of house building, the author compares it with that in vogue in Tonga, so much so that "it is difficult to believe that the one has not been copied from the other," and that, in spite of modern materials and improvements introduced by native teachers from Samoa, the native still clings to the ancient form. Unfortunately this does not apply to the clothing of his body, as the illustrations, of which there are several, plainly show; natives do not appear to advantage in "European slop clothing," although in the eyes of some they may appear to be decently dressed.

In describing a visit to what is known as the Tongan Cave (*ana toga*), Mr. Thomson gives the tradition, as related by one of the natives, of the attack made by a fleet of Tongan canoes, and how the occupants were allured over the cave, which had a false covering, and from which only a few escaped. Amongst the Tongans there is a tradition of this same occurrence, but with a different result, for it was the Niuéans who fell into their own trap, for the Tongans were able to leap the chasm, and, slaying hundreds of the enemy, cast their bodies into the cave.

The Niuéans appear to be of a mixed origin, some with "wavy, Polynesian hair" and the large features of the Cook Islanders, others with lank, coarse hair and the Malayan features and rather oblique eyes of the Micronesians." In one village there appears to be still left a remnant of the original inhabitants, but what they were, says Mr. Thomson, it is too late to speculate. A curious custom called *Matapulega* takes place on boys when only a few weeks old; it is effected by an old man performing the operation of circumcision in dumb show with his forefinger. No child was regarded as a full-born member of the tribe until he had been subjected to this rite. Circumcision, however, is never performed on this island except in this modified form. There is a belief in a future state and offerings are made to ancestors; totemism also exists. Kava is reserved entirely for the priesthood. The work ends with a very interesting and instructive account of Tongan music. J. EDGE-PARTINGTON.

Queensland: Ethnology.

Roth.

Superstition, Magic, and Medicine. By Walter E. Roth, B.A., M.R.C.S., &c. 53
Brisbane: Government Printer, Queensland, 1903. 32 x 21 cm. 42 pp. with
seven plates.

In this, the 5th bulletin dealing with the ethnography of North Queensland, Dr. Roth has made a valuable contribution to the study of primitive superstition. He has divided his material under seventeen heads into 163 paragraphs, the former including superstitions connected with the heavenly bodies and phenomena, the animate world, sea, fire, the origin of man, the vital principle, consciousness, individual names, the human body, sexual history, dreams, charms, disease, and death. The whole scheme is placed on a thoroughly scientific basis and cross-references abound. The illustrations are from photographs. The importance of collecting primitive beliefs such as these before they die out is obvious, and in the present work Dr. Roth has increased the debt already owed him by anthropology.

T. A. J.



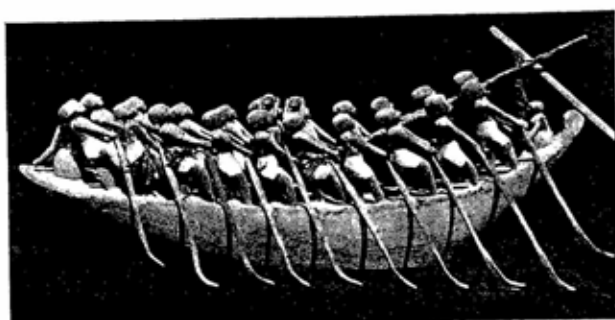
186. BOAT WITH ARMED MEN, &c.



1. ROWING BOAT.



1. SAILING BOAT.



116. GREAT ROWING BOAT.



116. BREWING SCENE.

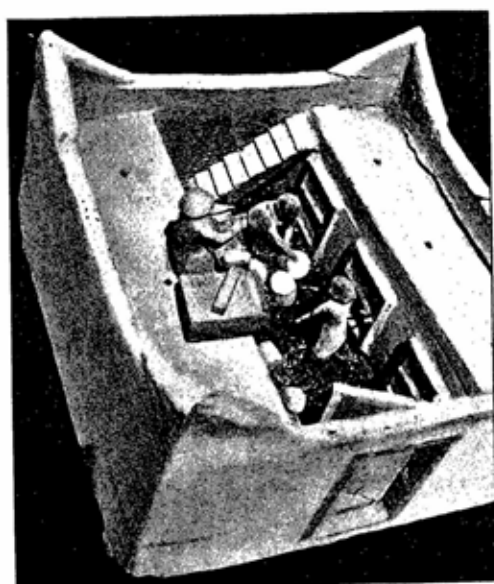


366. SACRIFICE OF THE OX.



275. MAN WITH HOE.

LEATHER WORKER.



116. GRANARY.

ORIGINAL ARTICLES.

Egypt: Beni-Hasan.

With Plate G.

Garstang.

Excavations at Beni-Hasan, 1902-3. By John Garstang, B.Litt.,
 Reader in Egyptian Archaeology at University College, Liverpool.

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Excavations have been made during the past season, beginning with December and ending in March, in the vicinity of Beni-Hasan, in Upper Egypt. A necropolis of the Middle Empire (circa 2000 B.C.) was found lying half way up the face of the cliff, over which looks the famous gallery of rock-hewn tombs. The presence of this site was already indicated by the numerous open mouths of square shafts sunk in the limestone, betokening pit-tombs anciently plundered. There was little sign of recent disturbance, so that it could not be determined without excavation whether other tombs remained under the surrounding *débris*, or whether, indeed, in a place so conspicuous and so much visited, the plundering of ancient times had left anything to reward investigation. It soon proved that the greed of plunderers to secure the treasures of the large upper tombs had preserved to the expedition a number of tombs undisturbed in the lower range by covering them with *débris*. The limestone itself, and the white dust powdered from it, had helped also to preserve the remains entire, by resisting the inroad of the "white ant" and small wood worms, which, in tombs dug, as was more common, in the sand, would have totally destroyed the wooden inscribed coffins and models with which these burials were found to be chiefly furnished.

In all, 492 tombs have been examined. Some had been robbed or destroyed in various ways, from some others though disturbed it was possible to extract information either by analogy or by the finding of some object lying neglected in the rubbish. Even those which the worms had eaten out might often be reconstructed in character from types which became familiar in those better preserved. These, the fewer number, provided a unique interest. Preserved in some manner, either by the intentional obstruction of enormous eroded boulders placed in the tombs or by an accident of position, or by chance, the doors of these tombs at the foot of their shafts were found still closed as they had been left in the third millenium B.C. It was thus possible to record by photography the appearance of each burial chamber with its tomb furniture complete and in its original position, as well as the disposition of each object step by step as the clearing of the tomb proceeded. Altogether some 450 photographs have been taken, of which probably about a hundred are interior views obtained by reflected light. Ultimately, it may be hoped, a sufficient selection of them will be published. The first preliminary account will appear, by request of the Director General, in a forthcoming number of the *Annales du Service des Antiquités de l'Égypte*; it will form the basis of a paper to be read before the meeting of the British Association in September.

These tombs proved to be largely those of the officials and retinue of the princes buried in the rock tombs of the upper gallery, as may be gleaned by comparing the names and titles recovered with those upon the inscribed walls. It is thus representative of the middle classes of an important town in Egypt during the Middle Empire, chiefly the XIth and XIIth dynasties. The history of the necropolis itself, however, is taken back to the very beginnings of the Middle Empire, in the VIth dynasty, by the discovery of a lower gallery of rock-hewn tombs, eight or nine in number, in one of which, curiously, the original burials were found intact at the bottom of its tomb-shaft, though the same had been re-used during the XIIth dynasty for burials which had themselves been plundered. This tomb, No. 481, which was apparently that of a prince, Apa (described as an official of the temple, confidential friend of the King, &c.) and his wife Teta, is decorated in low relief and in colour, which is in parts well preserved, with agricultural and other scenes in the style of art characteristic of the period.

One class of burial deserves special notice. It pertains seemingly to the XIth or early XIIth dynasty. The body is generally enclosed in a coffin of thin wood,

inscribed with name, titles, and formulæ, which is then placed again inside a stout coffin inscribed with texts and possibly painted with various representations. Upon the coffin, or by its side also if numerous, are wooden models, which generally include: (a) A sailing boat with men punting; (b) rowing boat; (c) granary; (d) scene representing the sacrifice of an ox; (e) scene representing the making of beer (from fermented bread); (f) girl carrying birds in hand and basket on head. The list may be supplemented, but these seem to be always included. The plate shows the character of some of these models, they include boats from three different tombs. The sailing-boat and rowing-boat from the tomb of Antef (No. 1) have one unusual feature, in the double-steering oars, controlled by a steersman, who controls the turn of these rudders by a thin pole, the weight of the large oars being supported by posts. The usual method was a single steering oar on the same principle, as seen in the case of the large rowing boat, 116. (A similar method is now in use on Lake Como.) In the sailing boats the essential figures are seemingly three men to hoist the sail, two men using punt poles over the side, a look-out (or *reis*), and a helmsman. The boat from tomb 186 combines rowing with sailing; it has also other curious features. In the fore part of the ship stands a negro with bow in left hand and two arrows in the right. Before the steersman, supported by an open lattice, is a canopy protected by shields placed on its sides, and apparently by some material fixed upon it by a row of studs around the edge. Inside is a quiver of arrows (or spears), and under the shadow of it two men play a game with moveable pawns on a chess-board table.

From tomb 366 is a unique representation of the sacrifice of the black spotted bull; while tomb 275 supplies, also additional to the usual deposit, a number of small models of labourers and artisans, two of which are shown.

The tomb 116 (of a chief physician, Nefery) was furnished with some remarkable models, three of which are pictured. The whole process of brewing, by fermentation of bread (the kneading, straining, &c.), is shown, while another smaller group, not shown, depicts the making of the bread. The model of the granary is very perfect: it consists of a courtyard with three sealed chambers on either side. The floor is filled with grain (barley), which men are gathering into sacks and small tubs. Other models, and the walls of the painted tombs, show the labourers ascending the stairway and filling the chambers from above by means of the holes provided for the purpose. The inventory is kept by a scribe, with pen in hand, seated in a position from which he overlooks the work. (This method still survives in principle in the granaries of the rich in Egypt, and is employed freely, it seems, in parts of India.)

Other objects in wood of some interest are figures of foreigners, a Libyan woman with child on back, and men with the beard and appearance of the *Amu sheikh*. A wooden capital in form of a lily seems to be the earliest of its kind. There are some ancient musical instruments, flutes, lutes, a drum (of wood and skin); while several pieces of basket and wicker work are in good preservation.

These excavations were made partly under the auspices of the patrons who supported the excavations at Bet Khallaf and Reqaqnah last year. The names are now as follows: Mr. Martyn Kennard, Mr. William MacGregor, and Mr. Hilton Price (Dir. S. A.) (privately), Lady O'Hagan (for a museum at Towneley, Lancs.), Mr. A. J. Evans (for the Ashmolean Museum), Dr. M. R. James (for the FitzWilliam Museum), and Mr. J. Rankin (on behalf of the Museum of University College, Liverpool).

An exhibition of the objects will take place during July (13-25) at the Society of Antiquaries, Burlington House, W. The report for *Reqaqnah* is now in the press with Messrs. Constable under the title *Some Tombs of the Third Egyptian Dynasty*. It will contain a *résumé* of what is now known of this period from excavations, with an introductory chapter.

JOHN GARSTANG.

Peru : Archæology.

Joyce.

On a Silver Vase from an Ancient Peruvian Burial Ground, now in the British Museum. By T. A. Joyce, B.A.

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An interesting vase or cup of ancient Peruvian manufacture has recently become the property of the British Museum through the generosity of Mr. C. H. Read, Keeper of British and Mediæval Antiquities and Ethnography. The material is hammered silver with a strong alloy of copper, beaten very thin and extremely brittle through oxidisation ; the design represents a human head with prominent aquiline nose. The mouth and chin are only roughly indicated, and the former is small with the corners turned down. The eyes are very large, and are represented each by two concentric circles in *incavo*. The ears are semilunar in shape and are in relief, hammered up from within. The hair is represented in conventional fashion by three or four transverse ridges extending from ear to ear at the back of the head. The diameter of the vase at the base is about 115 mm. and decreases considerably towards the top of the head. From here upwards the vase is very imperfect ; all that remains is a crumpled sheet of metal on the right-hand side. The lower portion at the back together with part of the base is also missing. It is probable that in its original form the vase stood considerably higher than at present, increasing in diameter from the top of the head upwards, and terminating in an everted lip, as the vases mentioned later. When obtained, the vase was enclosed in a wooden box, on the lid of which the following inscription in ink could just be deciphered :—"From a Peruvian burying place. Brought from the Pacific by Captain Henry Byam-Martin, 1848."



This type of vase is mentioned in *Peru, Incidents of Travel and Exploration in the Land of the Incas*, by E. G. Squier, pp. 141-142 ; and the author figures one of the two in his possession. The latter formed part of the large collection of gold and silver vessels found by Colonel La Rosa hidden away in the palace of Chimú, where they had been stored, according to the colonel's conjecture, at the time of the struggle between the Chimú and the Incas, to preserve them from the latter. Unhappily the greater part of the treasure was melted down for the sake of the metals of which it was composed.

Another vase of this type is to be seen in the Trocadéro Museum in Paris, and is figured and described by Dr. Hamy in the album illustrating the collection of American antiquities* in that museum. This specimen (No. 4774) was part of the treasure

* *Galerie Américaine du Musée d'Ethnographie du Trocadéro.* Par le Dr. E. T. Hamy. P. 106.

No. 152. Plate LIII.

mentioned above, and was brought over by Admiral Dupetit-Thouars. It measures 190 mm. high by 8·5 mm. broad, and is similar to those described by Squier, with the exception that the bottom is double.

T. A. JOYCE.

Malay.

Annandale.

A Magical Ceremony for the Cure of a Sick Person among the Malays of Upper Perak. By Nelson Annandale, B.A. 56

For some weeks last spring (1902) I stayed in a house at Grit, a Malay village in the "New Territory" of Perak, about seven miles from the border of the Siamese state of Rhaman. Part of the same house was occupied by the Malay *penghulu*, or headman of the sub-district, a native of Kelantan. One morning, in March, my Patani servant told me that the headman's wife had been *berhantu*, or possessed of a spirit, during the night, and that a very famous Kelantan *bómor*, or medicine man, who happened to be staying at Grit, had been hastily summoned to exorcise it. The woman, who was seated on the ladder steps outside the house, appeared to have recovered her senses completely, but her husband, who came out as we were speaking, confirmed my boy's statements, and further said that his wife had attempted to pull the flesh from his bones, that the medicine-man had "locked up the spirit in her arm" (by which he meant that he had caused it to materialise in the form of a nodule under her skin), and had forced it, by pinching and striking the place where it had materialised, to confess, through the woman's lips, that it was a *langsuir* (the ghost of a woman dead in childbirth), and that it lived in a certain parasitic Ficus tree of the kind known locally as *pauu jerci*. Under coercion it had further stated that a woman having familiar spirits (*pelesit*) who had lately crossed over from Rhaman, had left a jacket at Grit, with a familiar spirit to guard it. The *penghulu* told me, regarding this woman, that she was already notorious in Upper Perak, and that she had formerly stayed in the village of Lenggong, where he himself had been living at the time, and where all the men, except himself, had been possessed by her familiars and had become raving mad, speaking Siamese, a language which they did not understand when in their senses. A medicine-man had cast out the evil spirits, and their "mother," as the witch who kept them was called, had been forced to depart for Janing, the Government headquarters in the district, where she was staying at the time of our conversation. Here the matter rested for two days.

On the evening of March 26th, some hours after sunset, I heard loud shouts proceeding from the neighbourhood of a house in which, as I had learnt some days previously, a little girl lay seriously ill of an internal complaint. In fact, I had been asked to send her medicine, and the headman had consulted me about giving her certain European drugs of a simple nature, such as Epsom salts, which he had in his possession. Making my way to the place whence the shouts originated, I found a Malay dressed in an old cotton jacket and a pair of Chinese trousers, who was leaping and shrieking in the midst of a crowd, composed of all the men of the village and led by the *penghulu*, his brother, and the village schoolmaster, a young Kuala Kangsar Malay, who had been imported, since the establishment of British protection in the district, to teach the boys of the neighbourhood reading, writing, and physical drill.

This man, next whom I took my place, whispered to me that the sick girl in the house was being eaten by a witch's familiar (*pelesit*), and that the man who was behaving in such an extraordinary way was the famous Kelantan *bómor*, who was "making medicine." As the ceremony went on, he further explained that the *bómor* was possessed by two spirits—the familiar, which he had extracted from the body of the sick child, and another called *Nenek*, or "grandfather"; and that the two were striving within him. There was a bright moon, which, however, was constantly being obscured by clouds, and the medicine-man, after much capering and shouting, at last became fairly stationary in an open space just outside the house. His eyes were closely shut,

and he held his hands stretched out behind his back, with the wrists so close applied to one another that I thought that they were tied together; I was afterwards told that this was not the case, but that "the spirit held them." The constancy with which they were held in this position, through a period of over an hour, was marvellous, and I was told that he had exhibited some most extraordinary acrobatic feats before my arrival. I myself saw him leaping into the air, casting himself on the ground, rolling and writhing from side to side, without shifting the relative position of his two arms in the slightest. Sometimes he ran about within a limited area, sometimes he lay on the ground, sometimes he sat up; he shrieked, groaned, cursed, yelled out obscenities and prayers. When the spirit "grandfather" had the upper hand in him for the moment, he chanted passages from the Koran in Arabic, or called upon the name of Allah; when the familiar seemed about to gain the mastery, he cursed and moaned, and made obscene remarks, which caused roars of laughter in the crowd.

Meanwhile, led by the *penghulu*, they conducted the serious part of the ceremony, questioning him straitly as to the name of his (*i.e.*, the familiar's) "mother." Every method of cajolery and intimidation was attempted, they offered him enormous presents if he would tell, they threatened to beat him, to tie together his feet, if he would not. "Try to tell us," they said, and then, as if attempting to catch the spirit off its guard, they shouted out, "Tell us the name of your mother." Occasionally they scattered grains of rice round the medicine-man "to strengthen his spirit." The man, as if striving to tell, would commence to do so, and then would burst out into a peal of insane laughter or a ribald jest. If drama it was, it was the most perfect piece of acting that could be imagined; the two spirits spoke with different voices, a different intonation, and the closed eyes of the "medium," for such I cannot doubt that he was in his own opinion, added a peculiar solemnity to their utterances. This extraordinary scene lasted for an hour or more, during which he managed to gasp out that the familiar's "mother" came from Rhaman, and that she had left a jacket at Grit. I saw the *penghulu* and his brother exchanging glances by the light of a match with which one of the crowd was lighting a cigarette. Then, at last, the medicine-man cast himself at full length upon the ground, muttering, "How pleasant it is to sleep!" and lay still, except for sundry twitchings of his feet, and silent, except for curious beast-like noises. They begged him to move, they told him that he was lying on filth, that he would spoil his "silk jacket," but he refused to budge. At last he screamed out, "Whosoever has pity on me, let him bring incense!" Then one of the men brought out from the house a little Chinese bowl, full of live coals, on which a few grains of incense had been sprinkled. This they placed by his right ear as he lay on the ground, wafting the smoke over his face with their hands. Suddenly he leapt to his feet and rushed up the ladder into the house, where we all followed him. "Grandfather" had conquered the familiar. The sick child lay on a mat near the door; the medicine-man rushed passed her and seated himself cross-legged on the sleeping platform at the back of the house. By a most extraordinary coincidence the invalid began to grow better from that moment, natural functions, which had been in abeyance for some days, suddenly manifesting themselves; and she was promptly removed.

Now the medicine man sat on the *daïs*, his eyes open, but rolling from side to side, his whole body swaying with them, his appearance that of a drunken man, but his hands still held behind his back. He grinned, chuckled, and winked in a most maudlin way. Then they began to ask him how the familiar and the witch might be punished and rendered impotent, and he bade them make a candle of beeswax of a definite weight, and "a chain of seven strands, seven times folded, of three metals." But how were they to get such a chain? The *bómor* laughed aloud. "Take," he said, "a hank of white cotton thread, mark it in bars with wood from the fire and with grated turmeric; the thread itself will be silver, the black bars iron, and the yellow gold."

So the women of the household and the headman's wife made the candle and the chain, the door was lifted up, rice was scattered in all directions, and the *bômor* rushed down the ladder again, the familiar, cowed and terrified, wailing and begging for mercy through his lips. Following him we ran through the village, and then, along a narrow jungle path, to the Ficus tree on which the *langsuir* had declared, in the mouth of the *penghulu's* wife, that it dwelt. The candle was fixed to its trunk and lighted, and the medicine-man called upon "the Seven Sons of the Jinn" (*Tujuh Anak Jinn*). Two slip-knots were made in the magic "chain," and a loop was passed over each of his thumbs, which were then tied to one of the stout aerial roots of the tree. A fearful



SEVENFOLD CHAIN OF THREE METALS ON
THE ROOT OF THE "JERREI" TREE.

struggle ensued within the man, and, at last, he tore his thumbs from the "chain," and, raising his two hands in the air, cried out at the pitch of his voice, "Run from this place! Run! Run!" And we all rushed off, back to the village. The familiar had been left tied to the tree, and it was believed that its mother would suffer pains in her own body from the magic "chain" which bound it.

Up to this moment, universal good nature had prevailed among the crowd, but now that the spirit was safely imprisoned, they burst out into cursings against the witch.

The spirit "grandfather" has still to be exorcised, and I did not see the ceremony by which this was done, but I believe that the *bômor* held against his own forehead a strip of palm leaf knotted in such a way that if the two ends were pulled the knot would come undone. Then shouting out "*Lepas! Lepas!*" (Let go! Let go!), he pulled the ends, and the spirit was released as the knot was undone.

So far, I have described the ceremony from notes of my own, taken during and immediately after it, but the following information regarding it was obtained next day from some Malays who had been present. The medicine-man was one famous throughout the country, for he had had no teacher in magic but had learnt his art in a dream. Unlike most medicine-men, he made no use of music in his incantations, but sat with a cloth over his head, muttering the charms that had been taught him by some supernatural being, until the spirit dived into him. This process had been undergone on the night of the ceremony before I came. He had then pressed his nose against the naked body of the sick girl and had inhaled three times, thus drawing out the evil spirit in her. Afterwards he had hunted this evil spirit through the house, leaping up on to the roof and running about like a cat, and then rushing out into the jungle, from which he had just returned when I met him. I saw him the morning after the ceremony, and, though he was a man of very slight physique, he appeared none the worse for his exertions. But for his eyes, which were extraordinarily bright, there was nothing peculiar in his appearance.

There are many features of interest in the ceremony that has been described, and some of them appear to be of great significance. It is, I believe, one very seldom undertaken, and, indeed, I have never met even a Malay who had seen another quite identical with it, certain of its peculiarities being probably due to the fact that the man who conducted it did not belong to any one school* of magic, that is to say, had not learnt

* *Fasciuli Malayenses*, Anthropol., Part I., p. 93. London, 1903.

the traditional methods of any one teacher (*guru*). The attribution of purely physical, as distinct from mental, disease to an evil spirit's actual presence is not usual among the Malays of the Peninsula, and was in the present instance directly brought about by words uttered by a person believed to be in a state of supernatural excitement, for there was no indication that anything supernatural was believed to be the matter with the child until these words were uttered. I should, perhaps, explain that the *langsuir* had no connection with the familiar, being regarded at Grit as a "jungle spirit" (which cannot be tamed) except in so far that all evil spirits are, in the belief of a few of the more intelligent of the Malays, among whom was the headman of Grit, fundamentally one pervading the whole world.

The *paum jerei* is often connected with spirits of different kinds not only in the Malay Peninsula, owing to its peculiar growth, for it takes root in a crevice of the trunk of some other tree, and then sends down into the ground aerial roots that finally strangle its host, which decays and leaves it standing as if on stilts. The inhalation of the evil spirit was a primitive method, but a really savage medicine-man would have probably produced some material object to represent the disease, as the nodule under her skin represented the *langsuir* by which the *penghulu's* wife was troubled. The scattering of rice to strengthen a spirit, at least temporarily beneficent, is interesting, as is also the spirit's revival, when worn out with a hard won contest, by the pungent smoke of incense. The cheerful demeanour and ready laughter of the crowd during the ceremony has its significance, for nothing makes a man's soul (*semangat*)* so weak as fear or violent emotion, and when spirits are about it is well that his soul should be strong, or, at any rate, should appear to be so. I do not think any attempt would have been made to kill or seriously injure the witch *in propria personâ*, even had she been present, though she would have certainly been hounded out of the village, as had been done with a woman reputed to keep *pelesit*, whom Mr. Robinson and I met in Jalor. A dead witch would be more dangerous than a living one, for not only would her familiars, in all probability, be set free to work their will absolutely unrestrained, but her own ghost (*badi*), were she murdered, could hardly but be of a most malignant nature.

NELSON ANNANDALE.

Nigeria.

Notes on the Old Calabar District of Southern Nigeria. By J. Watt, M.A., District Commissioner, Local Correspondent of the Anthropological Institute for Southern Nigeria.

Watt.

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The Old Calabar district of Southern Nigeria lies between the frontier of the German colony of Cameroons, and the Kwa Ibo river. It comprises the region which is drained on the western side by the Akba Iyefe, and on the eastern by the Kwa, Old Calabar, Cross, and Kwa Ibo rivers.

The inhabitants recognise many tribal sub-divisions among themselves. Of these the most important are the Efik, who have come into close contact with European civilisation, being settled in important towns upon the Old Calabar and Cross rivers, the Ibibio, Ekoï, Okoyong, Oron, Odot, Ekoï, and Eket. There are vague traditions of the wars and migrations of these tribal sub-divisions; but little definite information about them can be obtained.

Considerable differences of dialect are observable, but an Efik-speaking man is generally understood, and with a little practice can understand any of the dialects.

Farming, fishing, hunting, and trade are the principal occupations of the people.

Farming.—Throughout the greater part of the district, the yam is the principal crop; but cocoa-yams, cassava, Indian corn, and plantains are also largely cultivated. A great deal of labour is devoted to the cultivation of the yams. A certain portion of

* *t. c.*, p. 96.

the land belonging to the village is chosen about the month of January, the plots of the different families are marked out, and the bush or low vegetation is cleared and burnt. The ground is then prepared for planting, and about the end of March the seed yams are set. The early rains set in about this time, and much labour is spent in removing the weeds, which are piled up on the boundaries of the plots, in setting poles to support the plants, and in heaping the soil round the roots. The only implements used are *machetes* and mattocks, usually of European manufacture, though wooden mattocks are also made in imitation of the imported article. The whole population of the village takes part in cutting down and clearing the bush. A plot of ground is usually cultivated once only in three years. A feast is held before the yam harvest begins, and until that has been held the yams cannot be used or brought within any compound.

Fishing.—Fishing is practised on a large scale on the rivers or creeks; fishing rights in the small streams are jealously guarded, and are a frequent cause of dispute. The fish are taken by means of traps, nets, lines, and poison. The traps used in the large streams are usually in the form of a fence, enclosing with the bank a portion of the water; they are furnished with a door, which is closed at high water, and the ebbing tide leaves any fish which may have entered. The hand-nets used from canoes are circular in form and weighted at the circumference. They are skilfully thrown so as spread over the surface of the water; they sink, and on being raised by means of a line attached to the centre, are drawn together by the weights and enclose the fish. Baited lines attached to floats are also used. The traps used in the smaller streams are funnel-shaped, and made of split bamboos. The wide end of the funnel is placed so as to intercept the fish, which pass up through the narrow end into an enclosed part of the stream, whence there is no egress except by the narrow end of the trap. Sometimes a poison is thrown into the stream, which stupefies the fish. The fish are dried in the sun and fastened on skewers. They are often sent to distant markets in the interior. Fresh fish, apparently, are not used as articles of diet.

Hunting.—The animals of the chase are bush deer, bush pigs, leopards (a small species), elephants, and alligators, and, in the Cross River, hippopotami. The crops are protected against the depredations of the smaller animals by fences, which are provided with small holes with slip-nooses attached to bent twigs held down by a stick at the back. The foot of the animal releases the twig as its head enters the noose; the bent twig flies up, and the animal is caught in the noose. Dane guns are imported, and the use of the bow and arrow has practically ceased. The natives of the district do not themselves hunt the elephant. This is done by Hausa and Menda hunters. When elephants are killed, half the flesh is given to the village on whose land the elephant was killed.

Trade.—The chief articles of trade are palm oil, palm kernels, rubber, ivory, ebony, and cocoa. Waterside markets are established on the rivers and creeks, whither the native traders go with their canoes and their boys. The traders settle in their houses, and the boys go out to the village markets of the neighbourhood and collect the produce in small quantities and bring it down to the waterside.

Besides this "foreign trade" there is a considerable trade among the people themselves in fowls, goats, dried meat, dried fish, piassava rope, &c. These are bartered or sold for copper wires or brass rods, the currency of the country.

Each village is made up of a number of compounds, standing in one or more streets. It has an Egbo house, where the chiefs meet to discuss matters concerning the village, and which contains the drum of hollowed wood, by means of which the people are summoned. The outer walls of the compounds have no windows; the roofs drain into the open space surrounded by the buildings. Usually one side of the compound is devoted to an open room, but the rest of it is divided into small apartments for the different members of the house. The houses are made without nails, of a framework of poles, bamboo wattle, and mud. The roofs are thatched with mats made of bamboo

leaves. The houses last for three or four years, and at the end of that time require to be renewed.

Burial places are found in the neighbourhood of many villages. The bodies of the deceased are not laid in these, but are thrown into the bush. The tombs are of elaborate construction. Some are in pyramidal form, 20 or 30 feet high, made with poles, and thatched with roofing mats. Shelves are placed inside, on which are plates, clothes, &c. Others are models of houses; others are in the form of a couch.

For those who dwell on the rivers, the canoe is next to the house in importance. The canoes are made of hard red wood, often of mahogany, hollowed out by burning. The implements used in their manufacture are adzes and *machetes*. At the stern is a platform, of one piece with the rest of the canoe, on which the canoe-man stands to wield his long steering paddle, which he rests against the side of his platform in order to get the necessary leverage. Usually the time is set to the paddlers by a boy, who beats upon a hollow piece of wood with two hardwood sticks, and another who vigorously shakes a pair of rattles. The canoe-men often sing a short song over and over again. In racing, a boy sits in the bow of the canoe and beats the water on each side with leaves. The paddlers sit on thwarts laid across from side to side. A shelter of mats is usually built for the master of the canoe near the bow. The majority of the canoe-boys sit astern of the shelter, but a few of the smaller boys sit in front.

The roads in use are merely narrow paths worn deep by constant traffic. Bridges are made over streams and the widely-extended sheets of water which occur in the forests, consisting of single logs resting on crossed sticks, the upper portions of which support bamboo balustrades.

Disputes between villages and tribal sub-divisions, usually concerning boundaries and fishing rights, are frequent and persistent. The natives have little idea of open war, but watch for an opportunity of catching and killing a solitary member of a hostile village, which, in its turn, will retaliate, perhaps several years later.

JAMES WATT.

REVIEWS.

Macedonia: Folklore.

Macedonian Folklore. By G. F. Abbott, B.A. Cambridge: University Press, 1903. 23 x 15 cm. Pp. xi + 372. Price 9s. net.

Abbott.

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"The present volume contains the results of some researches into the folklore of the Greek-speaking parts of Macedonia, carried on in 1900-1 by the author under the auspices of the Electors to the Prendergast Studentship and of the Governing Body of Emmanuel College. The materials thus derived from oral tradition have, in some cases, been supplemented from local publications." Such is the author's account of the genesis of an interesting and valuable addition to our knowledge of modern Greek folklore. He has further supplemented the materials thus gathered together by reference to predecessors in different parts of the same field, such as Tozer, Leake, Rodd, Rouse, Schmidt, Hahn, Georgeakis and Pineau, and by illustrations from other parts of the world chiefly supplied by the works of Professor Tylor and Dr. Frazer, or, as regards the Slavonic peoples, by Ralston.

There is hardly any country where the problem of race is more complex and difficult than in continental Greece, including in that term the portions of European Turkey where Greek is commonly spoken. To those anthropologists who seek in folklore for evidence of race, continental Greece therefore affords an exciting hunting-ground. Nor can there be any room for doubt that the different conquests and settlements during historic and prehistoric times must have caused many a modification in autochthonous customs, even where such customs have been substantially preserved. But how far any

such changes of custom have been dependent upon race, rather than upon stage of culture and environment, is a question it would require some boldness to discuss. Having regard to the large Slavonic settlements which took place in these districts during the later ages of the Empire, it might be thought that the striking resemblances which undoubtedly exist between Russian customs and those of Greece were traceable to Slav influence. This would, however, be an assumption not merely unverifiable, but often quite contrary to the known facts. It would fail to take into account the influence of the Greek settlements on the shores of the Black Sea from proto-classic times downward, and the strong Byzantine influence over the Russian Slavs of later date. The latter influence was manifested in other ways beside their conversion to the Orthodox Church. Rites prevailing to-day in Russia, such as those connected with the mourning for the dead, are, for example, similar to those practised in Macedonia and other parts of Greece on the "Souls' Sabbaths" (*ψυχασάββατα*), "but they are cast after Greek models, the very names in common use being either translated or borrowed directly from the Greek." The rites in question are part of the periodical celebrations of the dead, than which there are few more widely diffused customs. What probably happened was that Greek influence spread the Greek form of an essentially pagan institution, together with Greek Christianity, among the Slavs, supplanting or transforming the original Slav form. If this be so, it is obvious that the same or the like course may have been run by other customs and beliefs. The minutest enquiry and the most rigid analysis will be necessary to disentangle the various strands of the web of tradition, if it can ever be done, so as to assign to every race of a composite people its own peculiar contribution.

But if the book before us contain much that will puzzle those to whom the determination of racial elements is the prime interest of folklore, it will be read with pleasure by anthropologists whose desire is to obtain a picture of the mental processes of a people, or to trace the effects of environment, or the development of civilisation and of thought. Mr. Abbott's observations on the difficulty of drawing the line where belief ends and fancy begins are excellent. "It is extremely difficult," he tells us,—"much more so than folklorists sometimes imagine—in investigating the folklore of a country to fix with absolute certainty where real superstition ends and pure mythology begins. The peasant story-teller, though conscious of the fact that he is narrating a myth, is all the time more than half inclined to believe that the world which he describes is not an improbable world, that in the mysterious 'times of old all things were possible' (*ἡ τὸν παλὸν χρόνὸν ὅλα γίνονταν*). This was the expression with which one of that class once silenced my prosaic attempts at criticism." Anyone who has attempted to probe the savage mind, or even had experience of the ordinary every-day person in what is called civilisation, must recognise the truth of this observation. The unknown lies everywhere about us, and the visions we project upon it are incapable of being distinguished by all but the few with certainty from objective realities. At all events it is beyond doubt that people belonging to the classes which are the depositaries of tradition do not raise the question of belief or disbelief in any sharp and definite form. They are incapable of doing so; and it is because they are incapable that they are the depositaries of tradition, and are fitted to hand it on to others.

Mr. Abbott has made such admirable use of his sojourn in Macedonia, he has crammed his book with such a wealth of information, that it is not easy to select anything for special remark. After a short but entertaining account of his method of collection, and the various receptions he encountered, containing useful hints for other collectors, he goes through the calendar, detailing the observances at the different seasons and feasts. Omens and divination, symbolism (including therein mimetic magic), and the ceremonies and superstitions connected with birth, marriage, and death, next in turn occupy his attention. Thence he proceeds to folk medicine, spells, and spirits. He divides mythology from the consideration of spirits, and under this head relates folk-

tales about the Drakos and the Lámia. The great figures of quasi-historical traditions are Alexander and Philip. A number of illustrative developments of the Alexander myth are cited; but the author seems not to be aware that Alexander is an important personage in the legends of Further India. Bird legends, games, riddles, and a few miscellaneous matters occupy the remainder of the work, while appendices contain the Greek text of some of the tales, riddles, and medical prescriptions.

Mr. Abbott is inclined to interpret the Drakos, a mythological figure endowed with the evil ways and the stupidity usually characteristic of devils and giants, as an embodiment of a natural phenomenon—death, darkness, thunderstorm, or drought, but he cannot definitely decide which. "Where all is so dark," he wisely says, "it would be rash to be dogmatic." It would; especially as there is at least one other natural phenomenon to which the same name is applied in some parts of Greece, if not in Macedonia, namely, an unbaptised child. Mr. Theodore Bent suggested that the term Dragon applied to an unbaptised child was a term of good omen for its prospective strength. But he would appear to have overlooked the fact that an unbaptised child is actually regarded as without the pale of humanity. A French writer quoted as an authority by Sig. de Gubernatis in his *Usi Natalizi* says expressly that the unbaptised child, to which, according to sex, the name *δράκος* or *δρακοῦλα* is applied, is not even a human being in the power of the devil, but is itself a veritable devil. The Drakos of the stories is, of course, a product of imagination, but one in which Mr. Abbott's peasant literally believed. It was fashionable in a past generation to interpret such products of the imagination as embodiments of natural phenomena. So far as I am aware no real evidence was ever adduced in support of the interpretation. There is not the slightest reason to suppose (and it should hardly be necessary to say it to-day) that the python slain by Apollo had anything to do with the thunder-cloud dispelled by the rays of the sun, or that, despite Mr. Tozer, the Drakos embodies the idea of a thunderstorm. Such explanations are pure guesses, and they leave out one important consideration: mythologists may allegorise, but peoples in the folklore stage do not.

In the account of the wedding ceremonies a curious omission may be noted. The traditional, extra-ecclesiastical ceremonies in the church are described. But the service itself is practically ignored. Consequently it does not clearly appear at what point or points the traditional practices occur, or what their relation is to the ecclesiastical ritual. Our knowledge from other sources may enable us to conjecture, but this is not satisfactory, especially as local variations sometimes throw a flood of light upon the process of building up a composite ceremony. The omission suggests that Mr. Abbott has not himself witnessed a wedding, or at all events this part of it.

The same remark applies to the omission to tell us how a lucky is distinguished from an unlucky "first foot." But these and some other minor criticisms which might be made are not a serious qualification to the praise justly due to Mr. Abbott's work. Its results abundantly justify the Electors to the Prendergast Studentship and the Governing Body of Emmanuel College.

E. S. H.

Wales: Archæology.

Ward.

The Roman Fort of Gellygaer in the County of Glamorgan. By John Ward, F.S.A. *Transactions of the Cardiff Naturalists' Society*, Vol. XXXV., 1903. 59
London: Bemrose and Sons. 22 x 14. Pp. vii + 111. With 13 plates and 22 illustrations in the text.

This work is not only the record of excavations carried on by the Cardiff Naturalists' Society in the years 1899-1901, but also a valuable contribution towards the scientific classification of Roman forts in Britain. Mr. Ward has prefaced his detailed account of the remains at Gellygaer by an introduction dealing with the relations of the existing

Roman treatises on Castrametation to the actual remains of forts. He has brought out very successfully the points of similarity between a temporary entrenchment (such as we find described in Polybius or in the *De Munitionibus Castrorum*, attributed to Hyginus), and the solidly built *castra stativa*, of which the remains are still extant; whilst the points of difference are indicated not only in the text but also in an appendix contributed by Mr. Haverfield.

Of the two kinds of *castra* there specified, the large legionary fortress and the small fort held by a few centuries, Mr. Ward concerns himself with the second, and he gives a tabular list of such forts in Britain as have been scientifically excavated. From this it is easy to see that there is a certain constancy to type among them, and that a detailed account of one average specimen may be of value as giving a general idea of the methods employed. Though the British forts differ in some ways from other groups—e.g., those of the Rhætan Limes—these differences are not wider than it would be reasonable to expect.

Briefly, these small permanent forts were in plan as follows: A strong wall enclosed a rectangular space with rounded corners, with gates at the middle of each side. Towers were built at intervals in the wall, not breaking its line. A broad cross avenue (*via Principalis*) ran parallel but not coincident with the shorter axis (*cardo maximus*). Occupying a central position on one side of this avenue stood an important building with a cloistered court leading to an inner space backed by chambers, usually five in number. Flanking this building stood officers' quarters, themselves flanked by storehouses, and the rest of the space within the fort was filled with long parallel ranges of barrack sheds, and offices. Of this type of fort there is a fair example at Gellygaer, and it is instructive to see how in places the elucidation of its plan was rendered easier by comparison with similar forts such as Housesteads, Chesters, and High Rochester on the Wall, and Birrens Ardoch and Camelon in Scotland (e.g., the discovery of verandah posts, p. 66).

Gellygaer is a village of north-east Glamorgan, some 13½ miles from Cardiff. It lies on a Roman road that ran from Cardiff to the Gaer near Brecon, and is thus in the heart of the former territory of the Silures. The camp is some 780 feet above sea-level on a spur of Cefn Gellygaer, but the site is a gentle slope and not naturally strong. Its dimensions are 402 feet in length by 385 feet in breadth. Except for the removal of some cut stone the remains have been little disturbed, and were covered with a natural accumulation of soil. Thus the work of excavation was to a great extent favoured by circumstances, and it was on the whole very well conducted, though Mr. Ward confesses to certain mistakes, largely due to the constant changes in the supervision. He gives some useful experiences in the methods of excavation (diagonal trenching) and rightly dwells on the necessity of correlating all "finds" with the exact spot of their discovery.

For the determination of the period of the fort there are some useful data: firstly, the evidence of history, that the Silures, after giving trouble to Ostorius Scapula, were successfully subdued by Frontinus in 75–77 A.D., and never again questioned the Roman authority; and secondly, there is the evidence of the finds. Seven coins only were turned up, two of the Republic, and the rest of the early Empire. Those of Domitian and Nerva show signs of very little usage. Again (p. 80), there is a fragment of a Samian vessel with vertical sides of a type, which, according to Mr. Haverfield, probably disappeared from Britain at the end of the first century or soon after. The plan of the fort is early (cf. Appendix III., *A Note on Types of Forts*, by Mr. G. E. Fox, written before the Gellygaer excavations) and interesting as showing the transition from the construction with earthen ramparts to that with stone. From these indications Mr. Ward concludes that the fort was probably founded by Frontinus to secure quiet in the newly conquered territory, and that it was abandoned about 100 A.D., when the necessity for a garrison was no longer apparent.

One objection, viz., that the type of masonry corresponds to the late rather than the early work on the wall, is met by the argument that the roughness of the work was conditioned by the material—rough pennant grit. Such coarse, wide-jointed rag masonry as is represented on Plate II. meets its parallel in genuine first century work in Italy in districts where similar materials abound (*e.g.*, the walls of Fano flanking the arch of Augustus, the amphitheatre at Spoleto, &c.). The surface of the masonry at Gellygaer is sharp and not weather-worn.

Slight traces of alterations, &c., do not necessarily prove long tenure, and Mr. Ward ascribes certain peculiarities to the method of construction. Thus the sides of the tower chambers in the ramparts are not bonded into the front wall, because the earth from the ditch was first thrown up in a continuous bank, and faced with stone, and then at certain intervals the bank was scooped away from the front wall and the resulting hollow lined with rough masonry to form a square tower basement.

Inside the fort the cloistered building near the centre is most interesting. Mr. Haverfield points out that this was not the *prætorium*, and that we do not know its name; the five rooms at the back may have been treasury, store-rooms, &c., while the space in front may have been used for meetings, &c. Mr. Ward thinks this space was roofed, but hardly gives sufficient proof; the one buttress of the left gable would not counteract the weakness of the other supports. In view of this and of the instances of the absence of a roof in similar cases quoted, it is surely safer not to postulate one here. The buildings identified as storehouses are interesting; one is tempted to see in them the prototype of the Sussex barn raised on stone piers supporting a strong timber frame which forms a dry floor for storage.

The pottery seems to have been somewhat scanty and coarse, as might be expected, but the plates of comparative sections and restorations are useful. One fragment of glass (p. 84) is interesting as proving the wide distribution of decoration with incense ovals. Other fragments of stone, metal, tile, &c., present no special features, nor could we expect much in the way of inscriptions or artistic objects in a small camp soon dismantled.

The illustrations are good, and the plans and sections by Mr. Rodger and Mr. Ward leave nothing to be desired. Mr. Ward justly laments the absence of some uniform standard of measurement in archaeological research.

In conclusion, it may be said that while this book is the record of an excavation well carried out, Mr. Ward has also succeeded in making it of wider interest and value to all interested in Roman methods of fortification.

C. H. BLAKISTON.

India.

Poole.

Mediæval India under Mahommedan Rule, A.D. 712-1764. By Stanley Lane-Poole. London: T. Fisher Unwin, 1903. 20 × 13 cm. Pp. xviii + 449. Price 5s.

60

It would be hard to find a scholar better qualified than Mr. Lane-Poole for dealing with the intricate history of Mahommedan rule in India. His previous work on the history and numismatics of the Musalman world, extending from India in the east to Andalusia in the west, has given him a wide outlook and a comprehensive method not always found in writers on the past of India: the result is a thoroughly satisfactory history of the mediæval period, giving the deductions of modern scholarship in a condensed and popular form.

The word mediæval is used by Mr. Lane-Poole as including the whole period from the first Arab invasion of Sindh in the early part of the eighth century to the break-up of the Mughal Empire in the middle of the eighteenth century, as this period corresponds closely in culture and institutions with that known as mediæval in Europe. Indeed, it might be reasonably held that, in some respects, India is still in the Middle Ages, and

that, although its renaissance has begun, only the outer fringe of the nations and kingdoms, which make up the Indian Empire, has as yet been affected. This long period is but little known to the general reader, and is regarded by most as unattractive and repellent, but it may be hoped that those who read through Mr. Lane-Poole's luminous pages will hold this opinion no longer. The story abounds in interesting and dramatic episodes; the conquests of Mahmūd of Ghaznī and Muhammad bin Sām, the wild deeds of that madman of genius Muhammad Tughlak, and the heroic career of the chivalrous and open-hearted Bābar are all attractive chapters in history.

Mr. Lane-Poole deals as fully as his space admits with the wonderful series of Mughal emperors from Bābar to Aurangzeb, the exception to the general rule of oriental monarchies, according to which degeneracy sets in the first generation of a conqueror's descendants. The six great Emperors ruled over a period roughly corresponding to that of the Tudors and Stuarts in England, and, allowing for all their faults and failures, it may be confidently asserted that no European nation can point to such a series of able monarchs, and few can produce two equal to Akbar and Aurangzeb, the philosopher and the puritan.

It forms no part of the scheme of a history such as that under consideration to determine the effect that the conquests and invasions of Arab and Turk, Persian, Afghan, and Baloch have had upon the existing population of India, but there can be no doubt that in certain parts of northern India the admixture of blood is considerable. It is probable, however, that the settlement of the soldiers of a conquering army unaccompanied by their families has left much less permanent impression than the independent and often unrecorded settlement of tribes who pressed into India on their own account in times of disturbance. Such settlements are those of the Afghans under the Lodi kings and again in Rohilkhand in the eighteenth century, and the migration of the greater part of the Baloch race into the Indus Valley in the fifteenth and sixteenth centuries, where their descendants still remain distinct, a fact unnoticed in any of our histories of India.

The confusion between Pathans or Afghans and the other races inhabiting what we know as Afghanistan led to the mistake, into which all our early historians fell, of describing the Mahomedan dynasties which succeeded the first conquest of India as Pathans. Mr. Lane-Poole, of course, knows and states that this is incorrect. Yet even he speaks of the Ghorī conquerors as "Afghan Highlanders" (p. 46), whereas in reality they were Tajiks of ancient Iranian stock, and are never called Afghans by any native authority. Their successors were Turkish slaves who rose to important military commands, and the Khalji were also a Turkish tribe. Mr. Lane-Poole states (p. 91) that they derived their name from the Afghan village of Khalji, and had become Afghan in character, but what is his authority for this statement? Hasan Gango, the founder of the Bahmani kingdom, is also described (p. 178) as an Afghan, but all we know of him is that he is stated to have come from Delhi. On p. 197 Mr. Lane-Poole asserts that the term Mughal includes in modern usage the descendants of Afghans and Pathans, but this is not correct. In modern India, Mahomedans are roughly divided into Sheikh, Sayyid, Mughal, and Pathan, of which the first includes not only genuine Sheikhs or Qureshis of Arab descent, but also the descendants of Hindu converts, the second denotes Arabs connected or believed to be connected with the Prophet, the third, Mughal, includes true Mughals, Turks and Persians, while Pathan is confined to the descendants of true Afghans and Pathans. The volume is well illustrated with views of architecture, and portraits where available. Coins have been used wherever possible, but unfortunately the Mahomedan coinage of India affords no portraits of kings except in the case of the Emperor Jahāngīr. This unorthodox monarch delighted in shocking pious Musalmans by representing himself with the wine-cup in his hand, as may be seen in the illustration on p. 297.

European as well as Native authorities have been drawn on by Mr. Lane-Poole, and an excellent summary is given of the accounts left us by the earlier English travellers in India. He concludes his volume with the actual loss of all real power by the Mughals. The painful process of the gradual winding-up of the Empire and its replacement by the authority of the East India Company will be found described in Keene's *Fall of the Mughal Empire*, which may well be read in continuation of Mr. Lane Poole's most useful and interesting book.

M. LONGWORTH DAMES.

Andaman Islands.

Kloss.

In the Andamans and Nicobars. By C. Boden Kloss. London: John Murray, 1903. 24 x 16 cm. Price 17. 1s.

61

This is a very satisfactory record of an interesting cruise taken by the author in January 1901 to the Andaman and Nicobar Islands in the schooner *Terrapin*, which was commanded by its owner, Dr. Abbott. While not adding much to our knowledge of these races, it contains a great deal of interesting matter presented in a very readable form, and the amount of correct information which the author collected in the course of the three months passed in the Archipelago promises well for any future researches he may undertake in the field of anthropology, especially if to his manifestly keen powers of observation he possesses also a sufficient acquaintance with the vernacular, without which it is well-nigh impossible, even after long residence among savages, to rightly apprehend their modes of thought and understand the *motif* of their peculiar customs.

The visit of Messrs. Kloss and Abbott was undertaken with a view to the enrichment of the National Museum, Washington, U.S.A., and was completely successful, in that they added to the previously known fauna no fewer than sixteen new varieties of mammals and ten hitherto undescribed species of birds, while a fine collection of objects of ethnographical interest was obtained. Mr. Kloss has evidently the instincts of an explorer, and spared no pains to acquire as much information as possible regarding the aboriginal inhabitants; being also a skilled photographer, he has illustrated his remarks by an excellent series of characteristic portraits and scenes which have been admirably reproduced; there are, moreover, several interesting woodcuts, a useful index, and appendices obtained from official sources.

Mr. Kloss's notes regarding the Andamans, where he passed only two weeks, could hardly be expected to yield much original information; he was able to appreciate and confirm the generally received opinions expressed by most previous writers regarding the intelligence and tractability of these interesting Negritos. He states that he was disappointed with their marksmanship, judging from the demonstration given by a small party of natives from Little Andaman (known as Önges) whom he met at Rutland Island. His remarks might be equally well applied to the majority of the present generation of "friendlies" on Great Andaman, where a different type of bow is used by all except the one hostile tribe called Jarawas, but there the falling-off in the general average of skill in shooting is naturally to be explained by the fact that only the few who rarely frequent the "homes" provided by Government are dependent mainly on their own exertions for their supplies of food.

Mr. Kloss remarks with good reason that "it would be impossible to find a race of purer descent, for ever since they peopled the islands in the Stone Age they have remained secluded from the outer world, and to this isolation is due the uniformity so marked in their physical and mental characteristics." He mentions the causes of the great mortality among them since the establishment of the great penal settlement in 1858, quoting the statistics furnished by Government, which clearly indicate the approaching extinction of the race, at least on Great Andaman.

At the Nicobars, where Mr. Kloss passed most of the time devoted to his cruise, he was fortunate not only in finding his colloquial knowledge of Malay useful in enabling him to converse with some of the more intelligent of the natives in the central and southern islands, but he was able at the northernmost and most important island of the group to obtain from an experienced native catechist, long resident there, much interesting information, of which he has made good use. His visit, moreover, could not have been made at a more convenient season for recording the habits and customs of this race, more especially those connected with their memorial feasts, and of this circumstance considerable advantage was taken by the author, as also of the exceptional opportunities which he obtained of meeting several members of the remote inland tribe of Great Nicobar, known to the coast people as "Shom Pen."

As regards the few inaccuracies and omissions that call for notice, mention should be made of the statement based on the incorrect belief formerly held that Narcondam contains a volcano, albeit an extinct one; while to snakes and the "robber-crab" (*Birgus latro*) no reference is made; further, the interesting "Couvade" custom is merely "said to exist among the Nicobarese," but, as stated in a paper by Mr. H. Ling Roth in the *Journal of the Anthropological Institute*, Vol. XXII., page 214, this custom is practised among these islanders.

Mr. Kloss is certainly to be congratulated on the success he has achieved in producing a work of such undoubted scientific as well as general interest as the result of so brief a cruise.

E. H. M.

Ethnology.

Kollmann.

Die Pygmäen und ihre systematische Stellung innerhalb des Menschen-geschlechts. Von J. Kollmann. Separatabdruck aus den Verhandlungen der Naturforschenden Gesellschaft in Basel. Band XVI., 1902. 21 x 13. 32 pp. with four figures in the text. 62

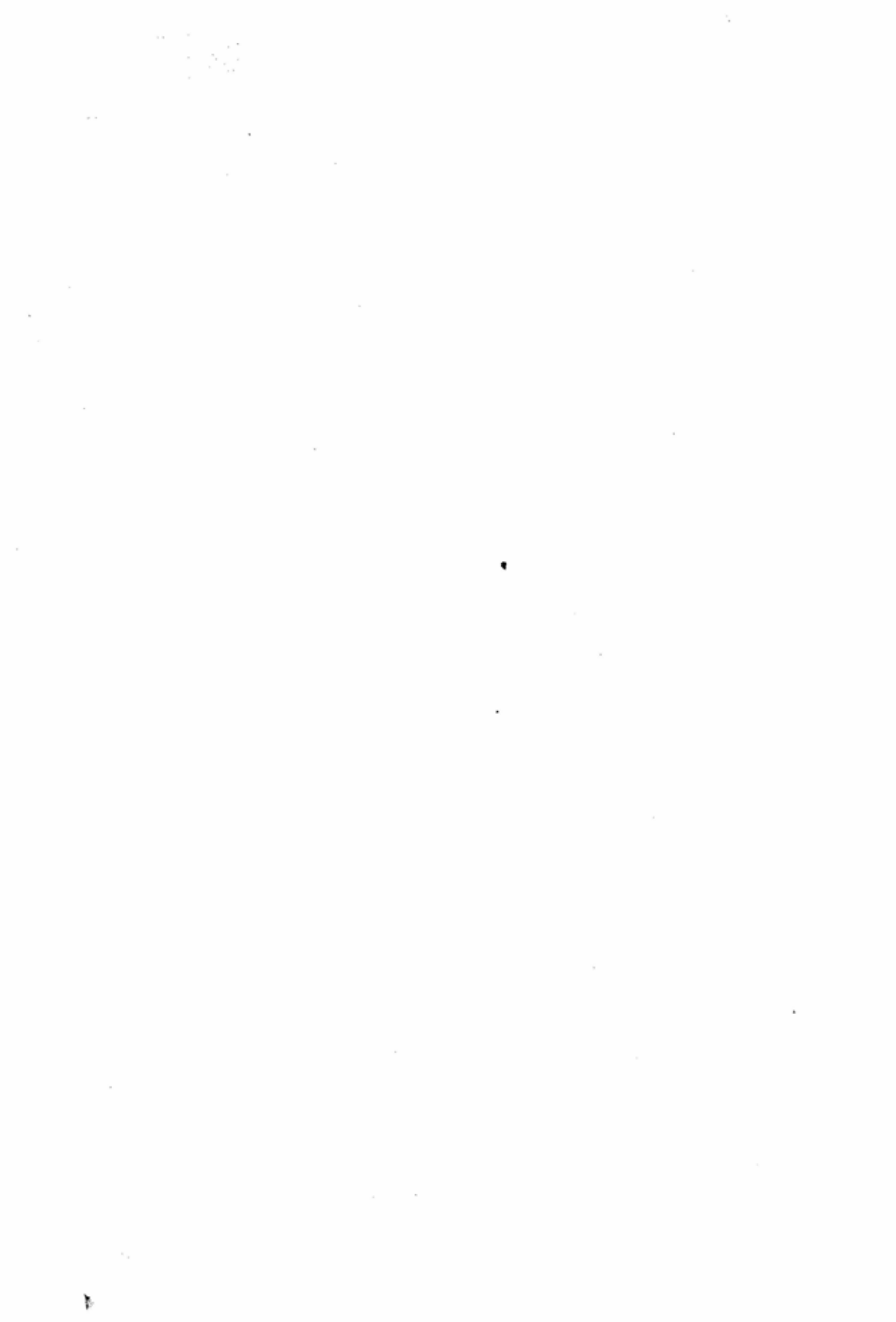
Professor Kollmann has made an exposition of such evidence as is now available in support of his well-known views as to the relation of the pygmy races to the other varieties of mankind. His conclusions are summed up in the following statements:—

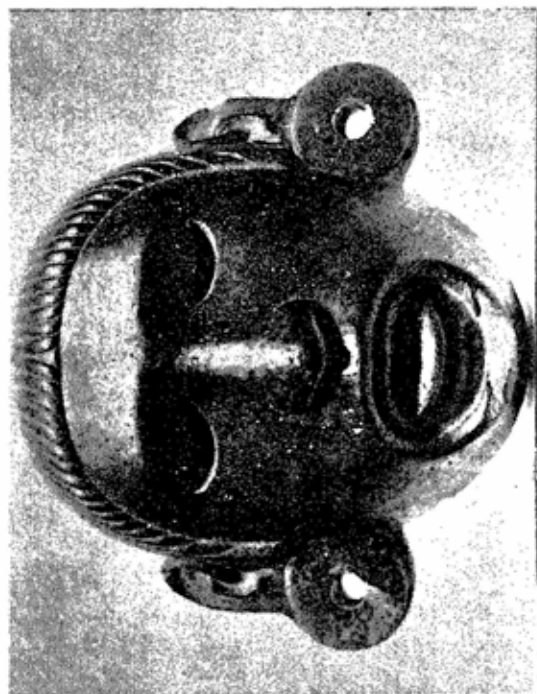
- (1.) Pygmy races can be recognised in all continents. Their stature varies from 120 to 150 cm., and their cranial capacity (not brain weight, though the original has Hirn gewicht) is between 900 and 1,200 c.c.
- (2.) The material collected in Peru by Princess Theresa of Bavaria yielded evidence of pygmies in the New World.
- (3.) The number of localities in Europe whence evidence of the existence of pigmy races in prehistoric times is available, is still increasing. France and Germany must now be added to the list of countries whence such evidence has been obtained.
- (4.) The view which regards the pygmy races as originating through the degeneration of races of normal size is combated.
- (5.) The author regards the pygmy races as representative of the primitive stock whence all the human races have been evolved.
- (6.) The occurrence of the remains of pygmy peoples in interments of the epoch of the first dynasty in Egypt adds a new interest to the historic references made by the ancients to the existence of pygmy races in Africa.

The essay contains a diagram representative of the author's views as to the genealogical history of modern human racial types. The chief criterion of distinction after that of bulk is the form of the hair. Five stages in the evolution of the existing types of mankind are recognised.

The essay is, on the whole, sketchy; but the references to literature include some new ones, which are very welcome.

W. L. H. DUCKWORTH.





B

A

TWO ANCIENT STONE MASKS FROM MEXICO.

ORIGINAL ARTICLES.

Mexico: Archæology. With Plate H. Joyce.
Two Ancient Stone Masks from Mexico. By T. A. Joyce, B.A. 63

The accompanying photographs represent two ancient stone masks from Mexico, each carved to resemble a human face with half-closed eyes, wide-open mouth, and stiffly braided hair. On the reverse, in each case, is sculptured, in low-relief, the figure of a priest or god, surrounded by various emblems. The history of both specimens is very obscure. The mask marked A. was originally in the collection of Henry Christy, and is described in his catalogue as follows:—"82. Another mask of hard brown lava, 12 in. high, and 10 wide" ('Anahuac,' p. 226). On the inside is a Mexican god, or rather a priest, cut in relief. His head-dress consists partly of large tassels, and his perforated ear-laps are ornamented with large stoppers or pegs, in the same way as those in the ear-laps of the mask The considerable number of masks found in all the Mexican collections shows how commonly they must have been used; and the old manuscripts tell us that it was customary to mask the idols when the king fell sick, "or in the case of other public calamities." This mask was transferred to the British Museum in 1883 with the rest of the Christy Collection. It was at first supposed that it must have come from Palenque, but it now seems more probable that its original home was Oaxaca. Mr. Maudslay figures it, though without remark, in Part II. (text) of *Biologia Centrali Americana*, in the chapter dealing with Copan. It is interesting to note that in the plates to this chapter there is reproduced a stela, representing a figure wearing a mask with wide-open mouth. This latter mask, however, has a large oval mark on the forehead, and bears no particular resemblance to that now being described.

The history of the mask B. is no easier to trace; it appeared at a sale in Sicily about twenty years ago, and has recently been added to the collection at the British Museum. The most striking point with regard to it is the peculiar resemblance it bears to the mask A. The only important difference between the two is the following: in the mask B. the parted lips of the supposed wearer are seen within the open mouth of the mask, whereas in the mask A. the whole of this part has been cut away, leaving an aperture. This affects the design on the reverse side, in so far that the legs of the figure, represented there in relief, are bent up in a very constrained position in order to avoid the opening. Mask B. is also cut from an acid lava, which, however, is almost the colour of blacklead, and possesses a fine polish; the general workmanship is of a finer character than in the case of mask A., and the features are softer and more rounded.

The edge of each mask is pierced with seven holes, probably for suspension, and underneath each ear-plug the ridge representing the distended lobe is bored from back to front with two parallel holes. The latter contain fragments of fibre cord by which bunches of feathers or some similar form of ornament were probably suspended in former times.

A mask of a design identical with that of mask B. is to be found in the collection of the Trocadero Museum in Paris and is figured in the recent publication *Galerie Americaine du Musée d'Ethnographie du Trocadero* by Dr. E. T. Hamy (plate XI.). This specimen, however, is considerably smaller, measuring 103 mm. high by 100 mm. broad; it is made of hard rock carefully polished and comes certainly from Oaxaca. Owing to the last fact it seems most probable that the masks in the British Museum should be attributed to the same locality. It was first figured and described by M. Lucien de Rosenz in the *Archives de la Société Americaine de France* for the year 1875,

* There is some mistake in these figures, the actual dimensions of the masks are:—A., 225 mm. high by 263 mm. broad; B., 212 mm. high by 246 mm. broad.

p. 308. The author thinks that it illustrates the legend of the maiden of Colhuacan, sacrificed by the Mexicans and deified under the name of Teteoinan, whose skin was made into a cloak for the priest of Huitzilopochtli. Dr. Hamy, however, points out that this story is Aztec, while the mask comes from a Mixtec locality, where the legend was unknown. His own opinion he gives in the following words:—"J'aime mieux reconnaître tout simplement dans cette curieuse figure le masque d'un mort de qualité, dont, par un raffinement de luxe funéraire, on a voulu représenter, non sans grand'peine, une partie du visage derrière le masque qui le recouvre." T. A. JOYCE.

Craniology.

Wright.

A Method to Facilitate the Recognition of Sergi's Skull Types.

By William Wright, M.B., F.R.C.S.

64

Probably there is no one who has not some difficulty in classifying skulls according to Sergi's system, and who does not feel some doubt as to whether what he terms a certain type will be admitted to be so by other observers. The reasons are, I think, firstly, that the types are too vaguely, too impressionistically defined; and, secondly, that too much is left to the unaided eye, scope being thus given to the vagaries of the personal equation.

With the view of rendering the system more valuable by eliminating the two above defects, I suggest the clearer definition of the types, and the construction of a simple geometrical figure on a photograph of the skull.

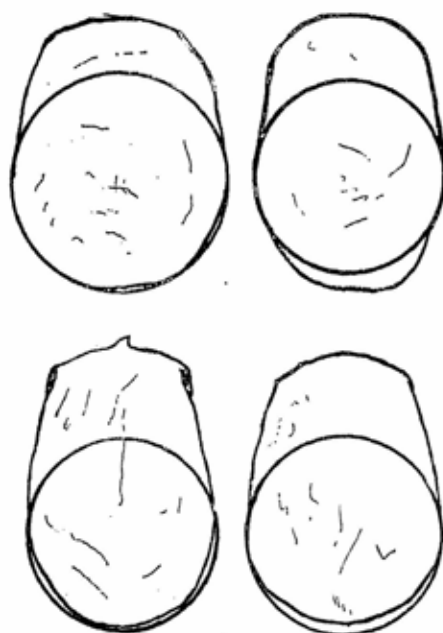


FIG. 1.—NORMA VERTICALIS.

To help in the identification of the type from the *norma verticalis*, I draw a transverse line in the position of the maximum transverse diameter, and from the centre of that line, with half the line as radius, I describe a circle. If a skull be ovoid, the posterior portion of the circumference of the circle should coincide with that of the skull. So defined, the ovoid type would be rightly termed ovoid—the basal half of an ovoid figure being a semi-circle—which is not the case at present, judging from Sergi's illustrations, where such a circle falls inside the skull. If, on the other hand, the skull were ellipsoid, the circle would fall within the skull, leaving an equal portion unenclosed before and behind. The intermediate forms might be known as ellipso-ovoid or ovo-ellipsoid, according as they resemble more the ellipsoid or ovoid types. In the sphenoid variety the posterior part of the circumference of the circle would fall outside the skull. In addition, from the adoption of this method, an aid is given to the eye, since there would

be an uniform curve with which to compare the anterior and posterior curves of the cranium, rendering the rhomboid and pentagonoid types clearly and readily recognisable. Further, a nomenclature so based would, I submit, be rational, since it would be based upon the length and position of the maximum transverse diameter, for these are, I believe, the two prime determinant factors in producing the shape from this *norma*.

This was pointed out by Sergi, and is clearly shown by a model which was very kindly suggested to me by Professor Haddon. It consists of a ring of clock-spring, the antero-posterior and maximum transverse diameters being represented by rigid rods, the former being fixed anteriorly, the latter being freely movable. It shows how the shape can be altered from a spheroid or an ellipsoid type to an ovoid or a sphenoid by simply varying the size and position of the transverse diameter. I bring it forward, however, as merely suggestive, for the conditions vary from those obtaining in the case of the skull. In the model we begin with a circle, whereas probably the earliest shape of the skull is ellipsoid; and again, the effect of a sudden change posteriorly in the position of the maximum transverse diameter must doubtless be different to that of the gradual change resulting from unequal growth, although, possibly, they vary more in degree than in kind.

The method applied to the *norma facialis* is as follows:—I draw a line between the two points in the same plane on the zygoma which are farthest apart; from the centre of this line with a radius equal to half its length I describe a circle. This gives us at once the proportion of height to breadth, for the greater the breadth or the less the height the more skull will be enclosed. It further, I submit, materially facilitates the recognition of the type of the forehead curve. The method is also applicable to the nasal apertures and to the orbits, giving in each case the general shape, in addition to the bare height and breadth.

Applied to the *norma lateralis* the method is slightly different. I here first draw a line through the occipital condyles and the alveolar point. I then drop on to this line a perpendicular from the most prominent point of the forehead: by two other lines parallel to these I enclose the skull in a rectangular figure: I then, by diagonals, obtain the centre of the rectangle, and from that point, with half the height as radius, I describe a circle. In addition to aiding the eye by giving an uniform curve with which



FIG. 2.—NORMA FACIALIS.

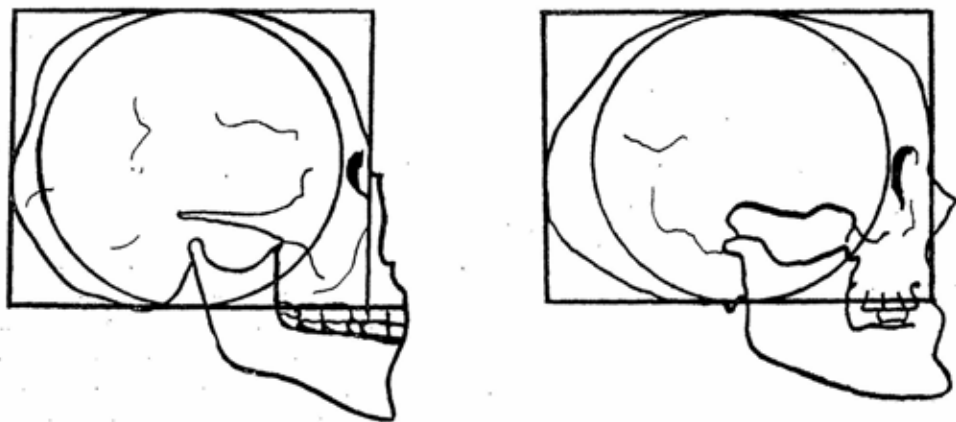


FIG. 3.—NORMA LATERALIS.

to compare the variable curve of the skull, this gives the relative height and further the degree of ortho- or prognathism.

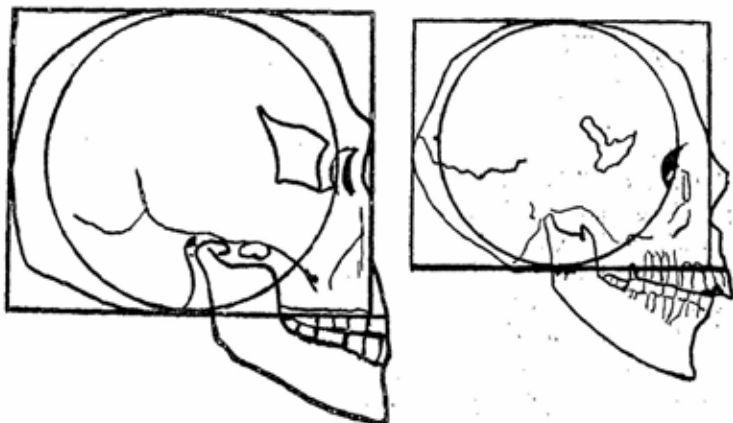


FIG. 4.—NORMA LATERALIS.

border of the orbit and the centre or top of the contour of the external auditory meatus are on the same horizontal plane.

WILLIAM WRIGHT.

England: Archæology.

"The Nine Stones." By A. L. Lewis, F.C.A., Treasurer of the Anthropological Institute.

Lewis.

65

The application of the term "nine-stones" to some rude stone monuments, which originally consisted of more than nine stones, as well as to others in which nine may have been the original number, has been the cause of many conjectures. For my own part I think that the term "nine" as applied to standing stones simply means "holy."

The number nine, like the number seven, has had a more or less sacred or mystic significance in many places, and the two numbers are found in conjunction in various parts of the globe, and even amongst our own rude stone monuments, as, for instance, at Stanton Drew. In one form of marriage in India the bridegroom goes round a tree nine times and the bride round another seven times. In another form, the pair walk round a sacred fire hand in hand and take seven steps together to the north-east. In China the porcelain pagoda at Nankin had nine stories, but some pagodas had only seven. The pavement in connection with the south altar at Pekin had nine circles round a single stone in the middle, the circles consisting of 9, 18, 27, 36, 45, 54, 63, 72, and 81 stones respectively. The Tartar city of Pekin had nine gates, but the Chinese city had only seven.

In Mexico and Hawaii counting, for certain purposes, was by nines; this counting referred to the nights, and the period was supposed to be ruled over by the so-called "nine lords of the night."

In the Philippines a nine days' festival, called Tibao, is held among the Tagals on the death of an adult.

Although the number nine was not without importance in Egypt, Greece, &c., it seems to have been of more note in the north of Asia and Europe. In a book called the *Mysteries of Freemasonry*, some astronomical reasons are assigned for this, which I shall not now repeat, as they may very likely be incorrect. In Siberia the number nine is of considerable importance in mystic rites. In a long description of certain healing ceremonies in southern Siberia (*The Standard*, Sept. 3, 1897), it is stated that "the great Shaman takes the *Tiur* and *Orba* in his hands again, and walks nine times "round the blazing bonfire in the direction of the sun from east to west," &c. In the *Journal of the Anthropological Institute* (XXIV., p. 135) we are told that at the funeral of a Shaman, the "nine sons," that is nine selected young men, walk round the corpse singing. Mr. Sumner, writing on the Yakuts of Siberia in the same journal

(XXXI., p. 104), says, "in the ninth generation" (of hereditary smiths) "a smith obtains almost supernatural qualities . . . only in the ninth generation can a smith without danger to himself forge the iron ornaments of the shaman's professional dress and drum."

At Upsala, in pagan times, nine persons are said to have been sacrificed every ninth year (Borlase, *Irish Dolmens*, II., p. 473); and in our own country, and in connection with a well-known rude stone monument, the Men-an-Tol, in Cornwall, which was very likely surrounded by a circle at one time, we are told that a sufferer from rickets or a crick in the back crawled or was drawn through the hole in the stone nine times against the sun (Hunt, *Popular Romances of the West of England*, p. 415).

Many other instances of the use of the number nine could be cited, but I think enough has been said to show the great probability that the "nine stones" means the stones of the nine ceremonies, or of the nine gods, or it may be of both, or, in other words, the holy stones. In like manner the dancing tradition, connected with the "Nine Ladies" on Stanton Moor and Dance Maen in Cornwall, may be a dim reminiscence of sacred circular dances formerly carried on at these places; and the custom at weddings of going to certain remarkable stones, sometimes natural, as at les Noces near Calais, or the Bridestones near Biddulph, sometimes megalithic, as at the Marshpool circle in Shropshire, may perhaps be connected with the name "the wedding," given to the circles at Stanton Drew, as showing that weddings were celebrated at the circles in prehistoric times. Although the construction of many of the circles may have taken place in the neolithic age, there is abundant evidence that they were resorted to for various purposes in the historic period, but of course it does not follow that the objects for which they were frequented were the same throughout the whole of their long existence.

A. L. LEWIS.

Scotland: String Figures.

Some Scottish String Figures. By the Rev. John Gray.

Gray.

The first four figures are well known among the children of the Cowgate in Edinburgh. The Leashing of Lochiel's Dogs was recently collected by me in the island of Eriskay, Outer Hebrides.

66

In describing these figures I have adopted the nomenclature devised by Drs. Rivers and Haddon. (MAN, 1902. 109.)

1. *The Bunch of Candles* [Figs. 1 and 4 (1)].—Lay the string single across the palm of the left hand; bring the long loop at the back of the hand to the front, passing the radial string between index and middle finger, the ulnar string between little finger and ring finger. Take up the palmar string between the strings of the long loop, and pass it over middle and ring fingers to the back of the left hand, and draw out tight. (The string now lies palmar across middle and ring fingers, encircles index and little finger, and depends in a long loop at the back.) With two fingers of right hand take up palmar strings of index and little finger, and pass the four strings so obtained between the fingers to the back, in such a way that the two middle strings pass between middle and ring fingers, and the outer strings pass between index and middle finger, and the ring finger and little finger respectively, leaving two pendent dorsal loops on middle and ring finger. Pass the two pendent loops at the back of the hand under the dorsal string embracing middle finger and ring finger distal and towards the wrist. Pass the dorsal string



FIG. 1.

THE BUNCH OF CANDLES.

under which the pendent strings were tucked to the front of the hand, and draw tight steadily.

When this figure has been completed another figure is made in continuation.

2. *The Chair* [Figs. 2 and 4 (2)].—Place the loop held in the right hand over the left thumb. With crooked index and middle finger of the right hand hook up proximal the dorsal loops of middle finger and ring finger of left hand. Bring them over the tips of middle and ring fingers to the front of the hand, and hold in a position vertical to the palm of the left hand.

(The four parallel strings of the two loops held by the index and middle finger of the right hand form the back of the chair, the two back legs are the loops held by the index and little finger of the left hand, the remainder of the string forms the seat, and a third leg is supposed where the thumb of the left hand is.)



FIG. 2.
THE CHAIR.



FIG. 3.
THE PAIR OF TROUSERS.

3. Let go left thumb and you have *The Pair of Trousers* [Figs. 3 and 4 (3)].

4. *The Crown*.—Place the loop on the thumb of the left hand, and carry both strings across the back of the left index finger, keeping the ulnar string proximal and the radial string distal. Loop the proximal string over the thumb. Pass the proximal string that encircles the back of the thumb and index finger over the points of those digits to their palmar side, and gently pull the long loop with the right hand, keeping the parallel strings rather widely apart.

5. *The Leashing of Lochiel's Dogs* [Fig. 4 (4)].—Position 1. Take up palmar strings with middle fingers. Pass both hands distal through thumb loops; this operation transfers radial string of thumbs to ulnar side of little fingers. Transfer middle finger loops to thumbs. Transfer dorsal strings to middle fingers. Pass little fingers distal through middle finger loops, take up little finger radial strings distal and return. There are now two ulnar strings on little fingers. Bend little fingers over distal ulnar strings of little fingers, and take up on the radial side the proximal ulnar strings of little fingers.

Release thumbs. Extend the figure. By moving the hands the knots at either end of the parallel strings are found to be running knots.

This figure was also called *Tying Dogs' Feet*.

A child produced the same figure by a laborious construction of the requisite knot at either end of the string, using his feet for want of a third hand.

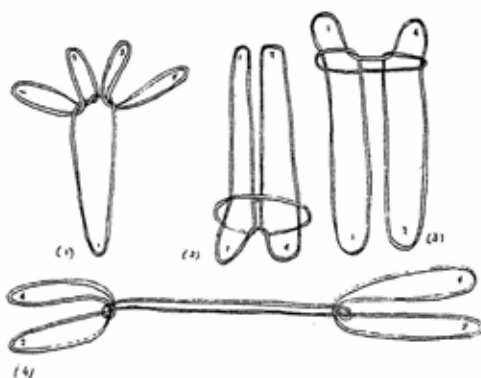


FIG. 4.

JOHN GRAY.

Baluchistan.

Hughes-Buller.

Note on some Tribes of Baluchistan: *Being Extracts from a Letter from R. Hughes-Buller, Superintendent of Census, Baluchistan, communicated by E. N. Fallaize, B.A.*

67

The races, which I am at present engaged in studying, consist of Afghans, whose earliest home, I believe, we have in this agency in the slopes of the "Takht-e-Suleman," where, as I have pointed out in my Census Report, some of the oldest groups are still to be found; the Baluch, from whom our agency takes its name, and that most interesting race, the Bráhuís, about whom nobody seems to know anything. In addition to these main races, we have some very interesting subject or semi-subject tribes such as the "Jats" and "Jats"—there are apparently two distinct groups, one being camelmen and the other cultivators, and in the Jat camelmen, I think we shall find people approximating very much to the gypsies—"Loris" of two kinds, and "Meds" whom I see that Sykes mentions on page 344 of the *Journal*.* Among the "Bráhuís," I may mention that we have a tribe "Sájadí," one of whose principal groups is the "Sáqá" (zai). Curiously enough these "Sájadís" are "Dáhís" or "Zikrís" by religion. Does not this juxtaposition of Sájadí, Sáqá and Dáhí speak for itself (*Vide Strabo in M'Crindle's Ancient India*, page 12)? I have a man working in Mekran, who has recently obtained a copy of the book on which the religion of the Dáhís or Zikrís is founded, and I hope shortly to have in my possession full facts about their religion. I have also instituted enquiries about "Jats," "Lóris," and "Meds," and I have on my table, at the present moment, a full account of one group of "Lóris." But, though these Lóris are wanderers, I do not think I shall be able to identify them with the gypsies, for they have a fixed occupation as ironsmiths. But we have another set of Lóris, about whom I am enquiring, who are minstrels, pure and simple, and possibly bear much more resemblance to the gypsies. They have a different language, too, from the Lóris who are ironsmiths, and they call it "Lórichíní," the ironsmiths calling their language "Mókkí."

R. HUGHES-BULLER.

Scotland: Archæology.

Abercromby.

Excavations at Meikleour, Perthshire, in May 1903. *By the Hon. John Abercromby.*

68

Near the junction of the Isla with the Tay, on the estate on Meikleour, the property of the Marquis of Lausdowne, there are two prehistoric sites, which I explored last May. The first lies on the top of a small isolated eminence, called the Black Hill, rising abruptly from the level ground to a height of between thirty and forty feet. The whole hill is densely wooded with firs and overgrown with whin bushes, both of which impeded the work of excavation and measuring.

At the north end of the summit, where the ground is narrower stands a circular or nearly circular earthwork. From crest to crest of the rampart the internal diameter is forty-two feet. From the base of one rampart to another, measuring from south to north, is seventy-two feet. From the south side of the ditch on the south side to the edge of the berm on the north side is ninety-three feet, for the nine-foot ditch gradually passes into a berm from nine to twelve feet wide. As the ground slopes rapidly to the north the northern part of the rampart is some ten feet higher, viewed from the outside, than the southern part, where it rises only two and a half feet above the top of the hill and the natural level.

So far as the trees permitted, nearly the whole of the flat internal space was excavated down to the hard, untouched gravel, and trenches were cut through the northern and southern parts of the periphery. The finds were not numerous. They consist of the end of a bronze pin two inches long, a small circular flint scraper, much

* *Journ. Anthr. Inst.*, XXXII.

worn at the edges and perhaps used as a strike-light; five iron nails and another small bit of iron, a flat stone five by four and three quarter inches with a circular hole one and three-eighth inches in diameter and half an inch deep sunk into it as if for a mould, and three small pieces of glass.

As upwards of fifty fragments of burnt bone and several flat slabs of freestone were found in a short cut twelve feet long and five feet wide, it is probable that a burnt interment had been disturbed by the constructors of the earthwork. Nothing, however, was found that could define its exact age or exactly determine its purpose.

The next site explored is in a fenced enclosure marked on the Ordnance map as "Prætorium," though locally known as the Camp. It lies on low ground about eleven hundred yards east of the Black Hill and one hundred and eighty yards west of the Isla. Roughly speaking, the work is quadrangular with faces of unequal length, that to the S.W. having a considerable outward bulge. Formerly it consisted of four ramparts and four ditches, but now the outer ditch has been taken into the field in which the enclosure stands. The inner rampart forms an irregular pentagon, the longest side of which is seventy feet and the shortest thirty-four feet. At present the ramparts are hardly two feet, the outer one only one foot two inches, above the natural surface. From crest to crest measures twenty feet, except for the fourth or outer one, which is only fifteen feet from the third rampart. The ditches originally were about three feet deep, though now much silted up. There are three well-defined entrances from the N., the S., and the S.E., with slight indications that one formerly existed from the N.W., all converging to the centre.

In the centre of the pentagon is a low mound, forty-eight feet in diameter and two and a half feet high, which has the appearance of being sepulchral. A trench, six feet wide, cut across the centre from S.E. to N.W., the output of which was carefully riddled, gave no evidence of an interment. At the centre the excavation was increased to include an area of fourteen by twelve feet and carried down below the undisturbed gravel without finding anything of importance. But later on, in carrying a trench along the southern roadway towards the centre of the mound, a burnt interment was discovered and subsequently two others, all on the south side of the trench through the centre. All three were on the natural level about one foot two inches below the surface. The scanty burnt remains had been placed at the foot of one or more flat slabs in a line, set on end in the underlying gravel. When first noticed the slabs had the appearance of being the sides of a cist, but in each case it proved that there was no cist and the upright line of slabs was a sufficient protection. A thin layer of large gravel surrounded each interment. There were no urns. The only object found with one interment was a globule of vitreous paste, about the size of a pea, with a thorn-like process projecting from it. One reason why so few burnt remains were brought to light must be attributed to the rabbits, as the mound, and, indeed, the whole enclosure, is a regular rabbit warren.

Nothing, unfortunately, was discovered to throw any light on the exact age of either the interments or of the earthworks, or whether the two were contemporary. Probably the interment is somewhat later, as I know of no example of a round barrow surrounded by a pentagonal and a quadrangular vallum. As the site of the "Camp" is surrounded at no great distance by higher ground it was not well adapted for a fortified post.

JOHN ABERCROMBY.

Persia.

Burn.

Note on Bronzes in Persia. *Being an Extract from a Letter by R. Burn, C.S., communicated by the Secretary.*

69

An account of an archaic bronze tripod from Southern Persia is given in MAN, 1903. 20. In 1894 I stayed a night at Dih-i-Diz where this tripod was discovered, and when I asked the villagers if they had any coins, they produced three bronzes, one

apparently an Apollo, another a Hercules (each being about eighteen inches long), and a greyhound about six inches long. Mr. Seddon, I.C.S., who was with me, agreed that the execution was good, but we had recently seen forged coins, and were not inclined to pay the high price asked by the villagers. At that time I had seen no account of bronzes from Persia, but, in view of Major Syke's discoveries, it seems possible these were genuine. We both thought the style was distinctly Greek.

May I point out that Dih-i-Diz is not between Malamir and Gudar Balutak. The last place is between the other two.

R. BURN.

REVIEWS.

Totemism.

Lang: Atkinson.

Social Origins. By Andrew Lang, M.A., LL.D. *Primal Law.* By J. T. Atkinson. London: Longmans. 1903. 23 x 15 cm. Pp. xviii + 311. Price 10s. 6d. net.

70

In this volume two authors put before us a theory of the origin of totemism, exogamy, and the laws of avoidance. If there is any advantage in adhering to chronological order Mr. Atkinson's share of this work, beginning, as it does, with man in the brutal stage, might perhaps have occupied the first place, leaving Mr. Lang's review of the problems of tribal organisation and totemism, which demand a longer course of human evolution, to bring up the rear.

Mr. Atkinson's solution of the origin of exogamy is, briefly stated, sexual jealousy. He conceives the course of events to have been as follows: Observation shows that among the higher mammals and some birds the small groups into which they are divided contain but one adult male; the remainder, the progeny of the leader of the herd, hover in many cases on its outskirts until such time as their paternal enemy, his natural force abated, falls a victim to their combined attack; the division of the spoil results in the setting up of a number of similar groups, each with a single adult male. This Mr. Atkinson supposes to have been the condition of *homo alalus* also. In course of time, however, he conjectures, maternal love, accentuated by the more prolonged infancy which probably accompanied a certain increase in the intellectual powers, succeeded in saving from banishment one of her male offspring on condition that he claimed no marital rights over the females of the horde. The increased power of the group both in offence and defence would tend to perpetuate this innovation, the more so as the marital rights might, at the death of the patriarch, descend without conflict to the other adult male member of the horde. The inclusion of a young adult male or males on the understanding that the rights of the father were respected led, firstly, to the evolution of the primal law of brother and sister avoidance as a duty, and secondly, to the introduction of exogamy. The females brought from without by the younger males were distinguished from those born in the horde, and in this explicit distinction lay the root of all future progress.

Mr. Atkinson goes on to trace the development of the various avoidances—father and daughter-in-law, mother and son-in-law, &c.—in accordance with his theory, and shows how unsatisfactory the theory of hostility, due to resentment of capture, is as an explanation of the facts. His final chapter on the classificatory system displays him, singularly enough, as a defender of the theory of group marriage, a position hard to reconcile with his thesis of the influence of jealousy in the evolution of social institutions. But it must be remembered that the work is posthumous.

It is clear that we have but few data on which to go in attempting to estimate the value of this ingenious theory. Our knowledge of the habits of the higher apes is far from being complete, and even were it otherwise the history of the anthropoids could not carry us very far along the path of human progress. On the whole it may be said that it gives a better account of the facts as to avoidance than the theories of either

Mr. Crawley or Dr. Westermarck. Mr. Atkinson supposes that the father exercised his rights over the females of the horde—his own progeny—long after the other avoidances had crystallised into custom; this accords with the fact that father and daughter avoidance is virtually (not completely, as stated on p. 263) unknown, being found only among the Veddahs. If the avoidances previously mentioned are on the one hand the conditions imposed by the patriarch of the horde on the adult males permitted to remain within it, and on the other hand, and secondarily, mark the steps by which the rights of the younger males were protected against elder males, it is in the nature of things that little or no trace of father and daughter avoidance should be found. Among the Kalangan father and daughter incest is found, apparently as a ceremony preliminary to the marriage of the latter (*Tijdsch. Bat. gen.*, XXIV., 427). Is this a survival of primitive patriarchal rights?

On the whole it may be said that Mr. Atkinson has avoided wild assumptions, and dealt with his subject in an eminently sane spirit. One point may, however, be noted. He assumes (p. 226) that the disappearance of an annual pairing time was among the earliest steps in human evolution—a step, indeed, that might have had fatal results, had it not been that the germs of mental power were there to counteract the influence of this break in the economy of nature. The subject is an obscure one; but these facts adduced by Dr. Westermarck and Mr. Havelock Ellis seem to show that if the periods of repose and activity are not to-day so strongly marked in man as in the animals, we cannot go so far as to say the primitive man, much less *homo alalus*, was nearer the European of the present day than to the gorilla. Much depends, of course, on the *milieu* in which man was evolved, for even among animals the periodicity of the sexual function undergoes changes under the influence of diet; and if the nascent human race was for a long period in tropical or semi-tropical regions where food was abundant the change assumed by Mr. Atkinson may have come about. Careful observations may yet throw some light on the question; but it is, perhaps, hardly one of primary importance, so far as Mr. Atkinson's hypothesis of the influence of sexual jealousy is concerned, for, as we have seen, the adult males are, as a rule, among the higher mammals, excluded from the herd permanently, not during the season of sexual activity alone.

Mr. Lang's share of the book is a theory of the origin of totemism and other bars to marriage. In his view mankind was originally, as in Mr. Atkinson's theory, organised in small wandering groups which eventually became exogamous; these groups must have had names or nicknames given them by their neighbours; these names became known to the group through the war-cries of their hostile neighbours or the gossip of the brides introduced from without; the coalition of two local totem groups thus organised and named, produced the phratry system; the totem names caused the kin to tell myths explanatory of their origin, myths led the way to beliefs, and beliefs to practice.

Before proceeding further it should be explained that Mr. Lang distinguishes between the local totem group and the totem kin; the emu group may, for example, be made up of bats, sprats, cats, and rats. This raises at once a question to which no clear answer seems to be given by Mr. Lang—what is totemism? Mr. Lang says (p. 133) that he uses the term totem only of the object which lends its name hereditarily to a group of kin. Now, it is clear that Mr. Lang's theory demands a period, possibly of considerable length, for the evolution of the group names; before these group names were evolved there was no possibility of a totem kin name. The group name must both then and later have descended either in virtue of birth in the group, *i.e.*, not by heredity, or by male descent (which Mr. Lang regards as much later in time), for it could not descend from the females imported from without, unless incorporation in the group conferred the group name upon them, too, in which case the totem was less hereditary than ever. How, then, can Mr. Lang speak of a *local* totem group?

Again, from another point of view the definition is defective. If the totem name is an hereditary kinship-group name, we must apparently reckon as totem groups the Scotch clans amongst others; such a definition does not seem to answer any practical purpose.

Passing on from this point, which is rather one of terminology, we are confronted with another unsolved question. Mr. Lang conceives that the local group was exogamous; the captured women (and their children) retained, he supposes, their own group name and the local group became heterogenous; in other words, the exogamous group became the exogamous kin with female descent. But under what circumstances, we may ask, did the captured women begin to retain their old group names, and why did their names descend to their children? To this question Mr. Lang seems to have no answer; he tells us, it is true, that the recognition of the heterogeneity of the group could only have come in this way, but that is hardly a sufficient answer to the question of how and why it came. But, assuming for the moment that a consciousness of heterogeneity was attained, Mr. Lang is confronted with a new difficulty. He holds that the two-phratry system results from the combination of two local groups containing members of several totems of descent (page 55). But if the totem kin within the group practised exogamy and the group was not exogamous, it is difficult to see why the phratry came to be so. If, on the other hand, the group was exogamous and not the totem kin, we do not see why a totem kin is found in only one phratry and not both. Mr. Lang admits that the drafting of the totem kin into one or other phratry must have been deliberate; for this deliberate step we can find no motive, unless both group and kin were exogamous. But if, as Mr. Lang supposes, sexual jealousy was the cause of exogamy, it is not clear how it could have operated to produce a rule that the totem kin must seek mates outside the kin as well as outside the group. Mr. Lang, at any rate, gives no satisfactory account of how such a rule came into existence. The idea of kinship, which he suggests as a cause, seems too abstract for the primitive times with which we are dealing.

As usual, Mr. Lang passes in review the theories as to the origin of totemism already in the field. He dismisses most of them on the ground that they assume male descent, though we know that female descent must have been prior in time to male descent. But here Mr. Lang has overlooked the fact that the totem name may have passed by local descent in the first instance; and, as a matter of fact, his own theory, as we have seen, involves this assumption. His criticism has done nothing, therefore, to reduce the number of competing theories to the origin of totem names and beliefs. Mr. Lang believes that the key to the origin of totemism lies in the names. He has not, however, shown, and has hardly attempted to show, the process by which the various beliefs and practices were developed; and, more remarkable still, there is no analysis of totemic superstitions, and, as has already been pointed out, no real definition of totemism in his book; Mr. Lang (page 133) does not go further than to say that the totem gives its name to a group of kin and is their hereditary ally. We learn on page 161 that the kin is exogamous. We have, in fact, to puzzle out for ourselves the meaning of the term.

If Mr. Lang holds that the adoption of an animal name for a group has led incidentally and all the world over to respect for the animal which gives its name to the group, it would clearly strengthen his case if, setting forth what beliefs are found among totemistic peoples, he showed that the same or similar superstitions are, or were, found among non-totemistic peoples with tribal or other group names derived from animals. This he has not done. His examples (page 172 *et seq.*) show clearly enough that nicknames are given and adopted; but the Sioux totemic names are obviously the result, not the cause, of totemism. It would be too paradoxical to argue that the name "Eat no geese" caused the group to which it was applied to give up eating geese. On the whole, therefore, it may be said that Mr. Lang has failed to do more than show the possibility that group names have an origin external to the group. He has still to show

how the name developed into a whole system of beliefs and practices, and in the absence of such a demonstration we can hardly admit that he has given us a working hypothesis of the origin of totemism.

There are a few errors, chiefly in the index. Mr. Lang himself is responsible for contradictory statements on page 88. In one paragraph it is said that a man may marry his elder but not his younger maternal uncle's daughter; in the next the reverse is asserted.

N. W. T.

America: Economics.

Jenks.

The Wild Rice Gatherers of the Upper Lakes: A Study in American Primitive Economics. By A. Jenks, Ph.D. Washington: Government Printing Office, 1901. 29 x 18 cm.

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This admirable monograph deals exhaustively with an economic element in Indian life which has long been recognised but has never hitherto received the attention it deserves. Except maize or Indian corn, wild rice (*Zizania aquatica*, Fr. *Folle avoine*) was the only cereal food of the American aborigines. Mr. Jenks has investigated the limits of its growth, the manner of its harvesting and preparation, and its effect on Indian habits of life and thought. The extent of the country throughout which it is found, as shown in Mr. Jenks' map, is enormous. It has not yet been reported in West Virginia, Tennessee, Missouri, or South Carolina, but in all these it is believed to exist; and, should this belief prove to be well founded, the area where it flourishes will include most of the United States east of the Rocky Mountains, the eastern parts of Canada, and a large area in the Dominion to the west of Lake Superior. Mr. Jenks believes that it established itself as the ice of the last glacial period receded, "wherever the last glacier left little mud-bottomed, water-filled hollows. Such ponds and lakes," he says, "are characteristic of the alluvial apron spread out over Wisconsin and Minnesota. In 1817 the interior of Wisconsin is spoken of as watered with innumerable small lakes and ponds which generally abound with *folle avoine*, water-fowl, and fish, each in such prodigious quantities that the Indians are in a manner exempt from the contingency of famine. Within the wild-rice district sluggish streams and quiet bends in the rivers, and creeks also, produce wild rice, provided the bed is mud alluvium. The grain has followed the stream towards its mouth, the water-fowl has sown it in its flight, and the Indian has carried it to his favourite lakes and streams, until, to-day, it is safe to say that the grain is found wherever in these two states there is suitable soil."

The entire system of waterways in Canada to the north of Wisconsin and Minnesota, extending from Grand Portage on Lake Superior through the Winnipeg system, produces it abundantly. In the lakes farther north and east it was reported 150 years ago. In Ontario it grows in immense beds along the shore of Lake Ontario, being very abundant in Quinto Bay, along Lakes Erie and Huron, and in that triangular section of the province lying between the lakes and the Ottawa river. It is found in New Brunswick and Newfoundland, and has even been reported in Jamaica.

This unique cereal forms an important link in the chain of ethnographic and physical evidence which proves the connection in remote times of North America with north-eastern Asia. Wild rice is found in eastern Siberia, is very common in Japan, extending from the island of Yezo in the north to Shikoku and Kiushiu in the south, thus covering no less than ten degrees of latitude. It also thrives in eastern China and on the island of Formosa. On the other hand, it is nowhere reported as a native plant in Europe, Africa, Australia, or South America. Its area of growth, therefore, forms a single province in the map of the world's vegetation—a province including nothing but Eastern Asia and North America. Possibly the certainty of finding it on the edge of the receding ice was one of the inducements which led to the re-peopling of North America after successive ice-ages had desolated it.

Mr. Jenks gives a most interesting account of the methods of production, binding, gathering, curing or drying, threshing, winnowing, and storing the grain. As regards production, all that has to be done is to gather the seed, keep it dry until the time for sowing, and sow it from a canoe, in the water where mud-banks adjoin the shore of a lake or stream. The grain ripens in the latter part of August or in September. Shortly before that time the women go to the rice fields in their canoes and tie the standing stalks into small bunches. When the grain is sufficiently ripe, two women go together into the fields to garner the seed. The stalks are usually so close together in the harvest beds that it is impossible to use a paddle, and the canoe is pushed along by a forked pole. As the harvesters pass among the rice, which stands four or five feet above the water, one of the women reaches out, and by means of a stick pulls a quantity of the stalks down and over the side of the canoe. Then with a similar stick held in her free hand she beats the ears, knocking the grain into the bottom of the canoe. In this way the grain on both sides of the path is gathered. When one end of the canoe is full, the labourers exchange implements, the harvester becoming boatwoman and the boatwoman harvester, and the other end of the canoe is filled on the return trip to the shore. The grain is then taken out, dried or cured, its tenacious hull is thrashed off, and after being winnowed, it is stored away for future use.

A very important operation in wild rice cultivation is the binding of the standing stalks into little bunches or sheaves, while the grain is in the milk stage, to prevent it from being devoured by birds. This also facilitates the gathering of the grain when ripened. General Ellis says of the Indians in Wisconsin, "They go into the standing corn with their canoes, and, taking as many stalks as they can compass with their hands, give them a twist and a kink, and then turn the bunches downwards, leaving them to ripen on the stalks. This gives the party twisting the bunches a kind of pre-emption to so much of the rice, which before was all common." The binding material consists of strips of bark. Two or three weeks afterwards it is thoroughly ripe. They then return to the river, and, each party distinguishing their own property by some known peculiarity in the mode of tying up, gather it without any disputes. The bunches are so tied that a pathway is left between the rows.

The curing process is begun as soon as the grain is landed. The primitive method was to dry the grains in the sun, but in some places it is cured on a rack covered with mats or wooden slabs, beneath which a slow fire is kept burning until the grain is dry; this takes about thirty-six hours. Grain so cured is lighter in colour than sun-dried rice, which becomes almost black. Sometimes it is put in the kettle and parched over a fire, and this seems to be the best method, although it involves more labour.

The next operation is threshing. A hole is dug in the ground and a deer skin filled with grain is put into it. The Indian then treads the grain and jumps on it until it is free of the hulls, steadying himself by a stake driven into the ground. There are many variations of this primitive method—wooden troughs, blankets or mats, and bags of skin or woven bark being all used to hold the grain while it is threshed. The pile of mixed kernels and hulls is then winnowed—usually by women. If the day be windy, so much the better; on a calm day a current of air is produced by a fan of birch bark. The grain is then enclosed in bags or birch-bark boxes, and finally stored in a subterranean cache or hiding-place.

Property in the rice fields seems to be generally recognised. Mr. Jenks thinks this is founded not on tribal allotment but on pre-occupation, certain beds having been regularly visited by particular families, which ultimately fix their abodes hard by. No one disputes their ownership, unless, perhaps, an enemy from another tribe, in which case might may extinguish right. The boundaries of the area covered by the family crop are sometimes distinguished by marks. The quantity harvested by a family varies from five to twenty-five bushels. At Pelican Lake, Wisconsin, each family gathers from

twelve to fifteen bushels. "They could gather more," says a local correspondent, whom Mr. Jenks quotes, "if they did not spend so much time feasting and dancing every day and night during the time they are here for the purpose of gathering."

According to the American chemist, Woll, whose recent investigation confirms a report by Mr. Peters in 1862, wild rice is the most nutritious of all cereals, and richer in flesh-producing substance, weight for weight, than any food, excepting sturgeon and dried beef. It is far superior to maize prepared in any form. An old traveller says that the Indians lived on it for the greater part of the winter, and that a small quantity was enough to furnish an ample meal. "For each man a handfull putt in the pott, that swells so much that it can suffice a man." An Indian living on wild rice eaten with maple sugar as his staple vegetable food, with bison, deer, and other meats in addition, enjoyed a richer food basis, according to Mr. Jenks, than the average American family of to-day, but this complex diet lasted during a part of the year only. The Indians are fond of soups, and use wild rice to thicken those made with game, fish, and meat of every kind, including, in former times, human flesh. It can be cooked in as many ways as ordinary rice, and can be used either as a substantive dish, a sweet, or a savoury.

In an extremely interesting chapter Mr. Jenks deals with what he calls the "social interpretations" of the wild rice. Many tribes have "a wild-rice moon," and some more than one. Thus the Dakota call September "the ripe-rice moon," October "the moon when rice is gathered and laid up for winter." Wild rice has its place in Indian ceremony and furnishes matter for some interesting myths.

It is not generally known that wild rice still has an extensive sale in Wisconsin and Minnesota, and many Americans are extremely fond of it. It is used in many lumber camps, and is sold to sporting clubs to sow on the margins of small lakes as food for water fowl. Mr. Charles C. Oppel, a Minnesota merchant, quaintly writes to Mr. Jenks as follows:—"Most of the cruisers, explorers, and homesteaders take it out into the woods with them. They claim that it is better than tame rice, because it don't take so long to prepare it. We also ship considerable; fact is, we handle from one to two tons a season." Other merchants report similar results, and all the grain thus sold is gathered by the Indians.

The absence of wild rice to the west of the Rocky Mountains and its presence in eastern Asia and in America east of the Rocky Mountains appear to lend support to the theory that the migration of plants and animals, including man, from the Old World to the New, took place across the North Polar regions rather than round the Pacific coast. The general route thus indicated would be shorter than any other, and direct access from Eastern Asia to the great central areas of North America was afforded (subject to intermittent obstacles offered by ice fields) by means of the great valleys of the rivers which discharge into the Arctic Ocean. Another interesting fact connected with the wild rice is that it was observed—probably in Nova Scotia—by the Northmen in the tenth century, who described it as "self-sown wheat-ears."

E. J. P.

Egypt.

MacIver: Mace.

El Amrah and Abydos, 1899-1901. By D. Randall-MacIver, M.A., and A. C. Mace. With a Chapter by F. Ll. Griffith, M.A., F.S.A. Special Extra **72**
Publication of the Egypt Exploration Fund, 1902. 32 x 25 cm.

This volume contains an account of the excavations carried out by Mr. Randall-MacIver and the late Mr. Anthony Wilkin for the Egypt Exploration Fund, in the season 1900-1901, on a pre-dynastic and proto-dynastic necropolis site in the neighbourhood of the village of al-'Amra, six miles south of Abydos.

The prehistoric cemetery was placed upon a small piece of table-land at the entrance of a wide wady which opens into the main valley near the fine headland of cliff which bounds the view southward from Abydos.

The chief value of the al-'Amra cemeteries lies in the fact that they cover the whole of the archaic period of Egyptian culture "from the earliest beginnings of the "New Race" down to the time when its culture merges into that of the first two Egyptian dynasties." Thus their contents are most valuable evidence with regard to the development of early Egyptian civilisation, and have taught us much which was previously unknown.

The evidence of disarticulated burial is meagre: "there was no indication of any "practice suggestive of cannibalism, so that 'cut-up' burials are most reasonably "explained by the theory of secondary interment." A conclusion even more adverse to the theory of disarticulated burial has, I believe, been reached by Messrs. Reisner and Lythgoe during their work at the pre-dynastic necropolis opposite Giza.

The general classification of the tombs, as given by Mr. MacIver, is a very important work, and is most useful when studied in connection with Professor Petrie's system of "sequence-dating" of the objects found in them. The work of Messrs. MacIver and Wilkin has enabled us to bridge over much of the gap between the culture of the "New Race" and that of the First Dynasty. Chapter IX. contains an interesting speculation as to the duration of the pre-dynastic period.

On Plate xix. are given different views of two skulls of the pre-dynastic period; which show that strongly-contrasted types existed even then. Whether these argue "racial" differences is another matter.

Of the actual objects discovered some of the most interesting were presented to the British Museum, where they may now be seen exhibited, with other relics of the most ancient civilisation of Egypt, on the landing at the head of the staircase leading to the Egyptian Rooms. Especially remarkable is the model of a house (pl. x., B.M. 35,505), and the clay group of oxen (pl. ix., B.M. No. 35,506). The slate object figured on pl. viii. 2 (B.M. No. 35,501), bears one of the oldest Egyptian hieroglyphs known; apparently the symbol or badge of the god Min.

The excavations of Mr. Mace in the necropolis of Abydos have also yielded interesting results, especially with regard to the intermediate period between the XIIth and XIIIth dynasties. The evidence for the existence of the enigmatic "Pan-grave" people, who so much resemble the prehistoric Egyptians, is discussed, and the "importation" of the black punctuated pottery (? from Cyprus) noted (p. 69). It is, however, rather dangerous to say that everything unusual is foreign and imported; the British Museum possesses a vase (No. 17,046) of this ware, representing a hawk, which is purely Egyptian in form. The possibility that this ware, and the XVIIIth dynasty red ware which is usually called "Syrian," may be in reality Egyptian, and only imported into Syria, Cyprus, and the Aegean, must not be lost sight of.

Mr. Mace's careful description of the contents of tombs of the XVIIIth and later dynasties is also of great value, and contains much instruction for the student of Egyptian archaeology.

The photographs, many of which we owe to the late Mr. Wilkin, are invariably excellent, and are most useful.

H. H.

Mexico.

Lumholtz.

Unknown Mexico. By Carl Lumholtz. London: Macmillan & Co., 1903.
2 vols. 24 x 17 cm. Price 50s. net.

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For five years Dr. Carl Lumholtz travelled and lived among the native tribes of Northern Mexico, and his experiences and the gist of his investigations are charmingly related in a work he has recently published under the title of *Unknown Mexico*. Dr. Lumholtz is a trained explorer, who not only can describe the country he traverses and discourse pleasantly on the interesting animal and plant life that he encounters, or describe the people, their customs, and their arts and crafts, but, from our point of view, he has the rarer and more valuable quality of sympathy with his fellow men, and

only by this faculty can an insight be gained into the true nature of a people. At first the natives persistently opposed him; they are very distrustful of the white man, and no wonder, since he has left them little to lose. But he managed to make his entry and gradually to gain their confidence and friendship, mainly (according to his statement) through his ability to sing their native songs and by always treating them justly. Thus he gained a knowledge of these people which could have been procured in no other way.

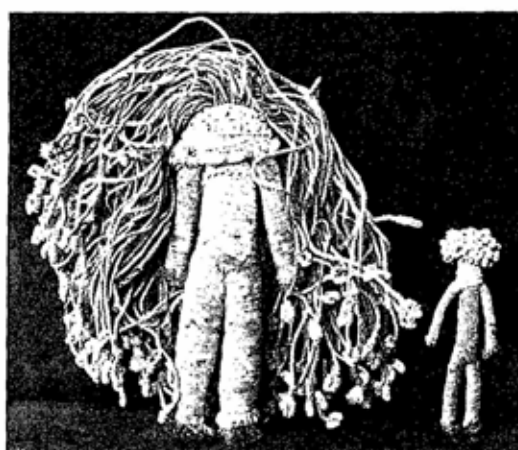
Incidentally, a good deal of information is conveyed about the present state of the relations between the various peoples, in different stages of culture, in the less-known part of Northern Mexico, and many facts, bearing on the archaeology of Mexico, are brought to light; but the chief value of the book, to the ethnologist, lies in his careful study of two quite different peoples—the Tarahumares and the Huichols. The mode of life, the things they make, their beliefs, and their psychology are admirably treated, and the reader feels that he is gaining an insight into the inner life of natives who probably retain in all essentials the customs and religion they had in pre-Columbian times. This is the sort of work that most needs doing at the present time, and of which we cannot now have too much. Particular attention was given, very wisely, to the elucidation of the decorative art of these tribes. Dr. Lumholtz has already published an important monograph on the *Symbolism of the Huichol Indians* (*Mem. Am. Mus. Nat. Hist.*, Anthropology II., 1900), in which he deals with the subject in great detail and with a wealth of illustration; indeed, he has been criticised for this, but this criticism will not be endorsed by those who have not the opportunity of studying, in the American Museum of Natural History in New York, the magnificent collections he has amassed. The fault of most collectors has been that they have not told us enough about the specimens they have brought home; it is practically impossible to be told too much. Ethnologists eagerly await the companion Memoir on the Tarahumares; the foretaste given in this book promises a rich feast. There is an interesting chapter on the games and foot-races of these people, but perhaps the most important part of the book is that dealing with the *hikuli* cult of the Tarahumares and Huichols. The principal sacred cactus (*hikuli*; Mexico, *peyote*; United States, "Mescal buttons") is the *Lophophora Williamsii*. It is exhilarating and allays all feeling of hunger, thirst, and fatigue; it takes away temporarily all sexual desire, and, although it produces colour-visions and a feeling of drunkenness in which objects dance before the eyes, yet the balance of the body is better maintained than under normal conditions, and the subject does not become giddy. *Hikuli* is applied externally for snake-bites, burns, wounds, and rheumatism; it is a powerful protector of its people under all circumstance, gives luck, and is the great safeguard against witchcraft. *Hikuli* is not as great as Father Sun, but sits next to him; it is the brother of Tata Dios. The greater part of the Tarahumares are nominally Christians, though all they know of Christianity are the words Señor San José and María Santísima. Moreover, they have adopted the words Tata (Father) Dios (God) for Father Sun, and the Virgin Mary becomes with them a substitute for Mother Moon, and in natural sequence the wife of Tata Dios. They celebrate in their own peculiar way all the Christian feasts they know with as much pleasure and as elaborately as their own native ceremonies. Religious feeling pervades the thoughts of the Huichol so completely, that every bit of decoration with which he ornaments the most trivial of his everyday garments or utensils is a request for some benefit, a prayer for protection against evil, or an expression of adoration for some deity. The main consideration of all their prayers is food, the means of securing good crops is rain, therefore most of their prayers, like those of the Pueblo Indians, ask for rain.

The book is embellished with a profusion of beautiful figures and plates, and it can be thoroughly recommended as an interesting, reliable, and important account of hitherto practically unknown peoples.

A. C. H.



TOMB OF ANTEF: VIEW OF INTERIOR.



STRING DOLLS.



WOODEN FIGURE: LIBYAN WOMAN CARRYING CHILD.

ORIGINAL ARTICLES.

Egypt: Beni-Hasan.

With Plate I—J.

Garstang.

Excavations at Beni-Hasan, 1902-3 (ii). By John Garstang, B.Litt.,
F.S.A., Reader in Egyptian Archaeology, University of Liverpool.

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The pages of MAN for July of this year, in Article No. 54, contained a preliminary account of excavations made at Beni-Hasan during last winter season, with a general review of the nature of the discoveries. It was seen that a chief feature of the tomb furniture of the Middle Empire (before 2000 B.C.), in that locality, was a number of wooden models illustrating in themselves the industrial methods of the country as well as the burial customs of the period. The illustrations of that article presented a selection of the more characteristic objects that had been found, including four varieties of boats, a model of a granary with compartments, a brewing scene, a sacrifice, and some artisans at work. By request of the editor a photograph is now reproduced showing the disposition of some of the objects in one of the tombs exactly as found, before removal or disturbance. It was the good luck of last winter's expedition to find a number of these instructive burial places entire, exactly as the original users had left them, so that it was possible to obtain a unique series of photographic views, illustrating the Egyptian ideal of furnishing the tomb of an official or courtier, at that time, in the district known as the Oryx nome.

The picture accompanying this note is one of these. It is a first view of the interior of the tomb of Antef, a courtier, which was the first tomb opened in the early days of December last. It shows clearly the remarkable preservation of the various objects, which are all of wood, and the freshness of the colours upon them. On the right hand is the rowing boat, with spreading prow and stern, rowed by eight oarsmen in pairs, and steered by a man who controls a tiller with each hand. To the left is a model representing the making of bread, and behind are sandals and a man leading an ox. In this photograph the objects are seen on the coffin-lid, and the granary, which has been removed, stood in the foreground. The other various objects, the girl with geese, a sailing boat, and man brewing, which completed the group, stood by the side. The chamber was small and the objects were necessarily crowded.

But there was not so much uniformity in the disposition and arrangement of the objects on and about the coffin as there was in the character of the objects themselves. A comparison of the furniture from six different tombs shows that each contained almost exclusively models of the following:—(a) A rowing boat; (b) a sailing boat; (c) a granary; (d) a bread-baking group; (e) a beer-making group; (f) a girl carrying basket and birds. In two cases there was an ox-sacrifice represented, and in one an ox was being led. One tomb group included also two additional boats, but these were of special character, containing armed men and spears. In three cases the remains of a real leg of ox were distinguished. It thus appears, from this summary, that there was a definite custom in the matter of funeral provision, and, while there are many smaller points to be explained, the general suggestion of elaborate provision for a journey seems to be the underlying motive. The well-filled granary yields its permanent supply of grain from which the bread and beer are derived.

In one boat, the sailing boat from the tomb of Antef, an open space beneath a canopy was left vacant. In another, two white figures, presumably *Isis* and *Nephthys*, were mourning at the head and foot of a bier, upon which rested the small model of a mummy (as familiar from wall-paintings). A third instance, equally of symbolic significance, was of rarer character. In a panel, between the eyes on the east side of a painted coffin of one *Neteru-hetep*, was a small carved wooden figure, in a seated position, with a somewhat special dress of hair. It seemed to be emblematic of the escaping *Ka*. The panel had been painted over, and when new it must have been easy to miss seeing its position, a fact which has since led some museum-keepers to make a

careful examination of all wooden coffins for some analogy which may have escaped detection.

The other photographs of the plate illustrate objects of special character. In the centre are two dolls, made entirely of string and beads. The ink or paint upon them shows that they are intended to represent females. The larger one is adorned with beads arranged as a collar of several strings and colours, while an anklet encircles the left leg, and the end of each hair is adorned with a cluster of small blue beads. The smaller doll has short hair, decorated with blue beads, which resemble a cluster over the head. These objects were found in positions which did not give any evidence of their use.

The wooden figure shown in front and in profile is the model of a woman, with long skirt, carrying a child upon her back, apparently under a shawl. (Actually the head of the babe is fitted by a short peg to the rounded back of the woman.) The custom and dress are not recognisably Egyptian. In a survey of the famous rock tombs of Beni Hasan, made some twelve years ago, Mr. Percy E. Newberry discovered a scene which had up to that time eluded the attention of all visitors. It is published by him in *Beni-Hasan I.*, Plate XLVII., and two coloured figures in Plate XLV. The scene shows an Egyptian officer introducing a group of seven foreigners. Three of them, his report tells, are warriors with yellow skin, blue eyes, and thick matted hair, in which are stuck five or six ostrich feathers. They are clothed in red garments fringed at the bottom; in the right hand they carry ostrich feathers, in the left a curved club. The remaining four figures of the group represent women. They also are fair-skinned and blue-eyed, and have light brown or red hair. They are clad in simple long skirts of red colour. Two of them carry children in a basket slung over their shoulders, and two carry a red-coloured monkey on their backs. These peculiarities point to their being Libyans. This object represents in model what the artists of the time painted upon the walls of Khnemhetep's tomb (No. 14). The chief features of the statuette, which is about 8 inches in height, are the character of the skirt, the wealth of hair arranged around the face, rolled back from the brow, and the prominent nose with rounding end. On the top of the head a small hole is pierced, suggesting that the woman carried also upon her head something which is now lost, the tomb having been previously disturbed.

A selection of objects discovered in this excavation were exhibited during July in the rooms of the Society of Antiquaries, and the committee has in view the possibility of meeting a request for another exhibition next year. Meanwhile the collection has been distributed to museums practically interested in the results. The Ashmolean Museum at Oxford has received the boat with armoured men and canopy, and the barque with model mummy. The whole tomb deposit of Khety (366), including the sacrifice, is to be shown in actual position upon its coffin at the Fitzwilliam Museum, Cambridge. The University of Liverpool, by the generosity of Mr. J. Rankin, the donor, will be provided with a series of objects useful to students, including the model of a granary, and the painted coffin of User-het, a warrior, inscribed with long funereal text.

The report of these excavations will probably take the form of a volume on the Burial Customs of the Egyptians in the Middle Empire, to be published next year. The report for the previous season's work at Reqaqnah is being issued to the public by Messrs. Constable under the title of *The Third Egyptian Dynasty*.

JOHN GARSTANG.

Mexico.

Some Mexican Portrait Clay Figures. By Adela C. Breton.

The portrait figures from which these drawings were made came from a mound or tumulus near Etzatlán, in the State of Jalisco, Mexico.

The town of Etzatlán is about 70 miles north-west of Guadalajara, and at the first coming of the Spaniards was the capital of a state or canton forming one of a con-

Breton.

federation of states called Chimalhuacan, inhabited by peaceful and civilised communities speaking the Nahuatl language.

The mound in question is three leagues north of the modern town, on a level field belonging to the hacienda of Guadalupe, and the owner caused it to be excavated early in 1896. Unfortunately there was no skilled supervision, no data were secured, and most of the figures were broken.

Two oblong elevations near the mound, now only a few feet high, may have been sites of former buildings. The mound itself was rounded and about 40 feet high. A wide trench was dug from both the north and the south sides towards its centre and almost through, and about half the mound had been cleared away to the ground level. Nearly in the middle, on the south side, the workmen came, at a few feet below the outer level, to a layer of charcoal and soft, loose, brown earth, in which they found a skeleton resting on a whitey-grey compound, a sort of grey clay. The skull was finely developed. Above this they found the figures.

The mound was composed of a core of very hard earth (there were stones which looked as if they had been used to pound or flatten down the earth), upon that were



FIG. 1.

several feet of mixed stones and earth, the stones unhewn and varying in size up to two feet square, and then more earth covering the whole.

I made sketches of some of the figures, and was able to bring away two, which are now in the Bristol Museum. Some remained at the hacienda, and others were given to the owner's friends. There were at least 20; two of them were not shown. Señor D. Mauro Villaseñor, a judge at the neighbouring town of Ahualulco, had two, a man and a woman, some shell bracelets, jade amulets and beads, and cut shell and stone ornaments. He also had a cylinder of extremely hard polished stone which he thought was the stem of a pipe, and some very small flat bits of white metal—not silver—with holes.

It appears to have been the custom in that part of Mexico to place portrait-figures round a tumulus, probably representing members of the deceased's household. A herbalist who, in the course of wanderings in a deserted part of eastern Jalisco, had come across several burial places, told me he had found this the case. Near Chapala

FIG. 2.—SCALE $\frac{1}{2}$.

two female figures were found together, one apparently the chief lady, dignified and smiling, carrying her platter of offerings on her left shoulder. The other, of lower birth, had a painful expression of horror in her face and clutched her hair with one hand while the other was outstretched in seeming effort to ward off some terrible fate.

Those of Guadalupe seem all prosperous and happy. The head lady (Fig. 2) bears her offering to the gods and wears armlets like those found in the mound. Her face and body are painted or tattooed, and she appears to have a ceremonial symbolic garment with a pattern of grecques. She has several rings in each ear and a nose ornament. The same type of face and figure may still be met in the Indian villages, and it represents a matron of the highest qualities—capable, hard working, kindly, an admirable housewife, and the best mother in the world. Two other female figures may have been her handmaids. They are all of coarse clay, from a quarter to one third of an inch thick,

one 12 inches high, and the others 18 and 20 inches. Two men were painted with great detail; one of them (Fig. 4) was admirable as a work of art, showing great mastery both of modelling and colour.

One of the three armlets which I have is a plain flat band of shell. Of the other two figured (Fig. 5), one has 26 frogs carved in low relief (a small piece is broken off), and the other has four two-headed snakes and four frogs alternately. Small shell frogs

FIG. 3.—SCALE $\frac{1}{2}$.FIG. 4.—SCALE $\frac{1}{2}$.

and beads of various shapes may have been parts of necklaces, and there are some curious small shell silhouette figures. All these are in the Bristol Museum. They are specimens from a great quantity at the hacienda.

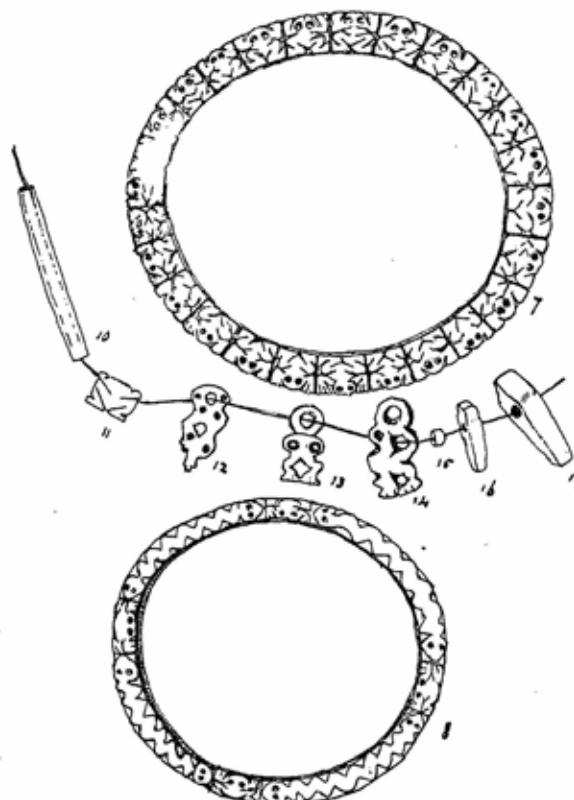


FIG. 5.—SHELL BRACELETS, CHARMS, AND BEADS, PIERCED FOR SUSPENSION, SCALE $\frac{1}{2}$.

Frogs seem to have represented some Mexican divinity, as at Guanaxuato there are some rocks above the city which have the appearance of frogs, and were regarded as tutelar gods by the Indians. Offerings were made and dances performed there. A carved frog stands by one of the rock-baths on the hill of Texcotzingo, near Texcoco, where Netzahualcoyotl had his famous gardens, and I possessed a celt of dark stone, shaped into a frog and polished, from Zacatlan, on the



FIG. 6.—OBSIDIAN "CORE." SCALE $\frac{1}{2}$.

border of the States of Hidalgo and Puebla.

As this mound is near the great obsidian workings of Teuchitlan, where miles of hillside are strewn with refuse cuttings, one would expect to find good implements in it, but I am not aware this was so. Two triangular flakes of unusual shape and some "cores" were all that I saw. There was a manufactory of these prismatic objects, usually called cores, on the hill, now an island, in the Lake of Maddalena, close to Etzatlan. Dozens of rejects may be picked up there, whereas among the myriads of flakes of all sizes and shapes at Teuchitlan there are none.

ADELA C. BRETON.

England: Archæology.

Stone Circles in Derbyshire. By A. L. Lewis, F.C.A., Treasurer of the Anthropological Institute.

Lewis.

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The attention of anthropologists has lately been drawn to the circle of Arborlow, in Derbyshire,* by the explorations carried on there during the last two summers by the Committee appointed by the British Association for the Advancement of Science to investigate the age of stone circles. Arborlow, which may be considered to be the fourth circle in England in order of importance (though Cumbrians would doubtless claim that position for the "Long Meg" circle), was described, with a plan by Sir Gardner Wilkinson, in the *Journal of the British Archæological Association* for June,

* Six miles from Bakewell, but only one mile from Parsley Hay station on the Buxton and Ashbourne railway.

1860; by Sir John Lubbock, in *The Reliquary* of October, 1879; and by myself, also with a plan, in *Anthropologia* in 1873; and a very detailed account of it has now been given in the Reports of the Committee to the meetings of the British Association at Glasgow in 1901, and at Belfast in 1902.

The circle is surrounded by a ditch, with an embankment outside it, like the much larger monument at Avebury, and, as the ditch is inside the rampart instead of outside, it was obviously not intended for defensive purposes. The average widths of ditch and bank are somewhat over 20 feet each, and their present height and depth, 5 feet (more or less); the depth of soil in the interior of the circle is only about 2 feet, below which is practically solid limestone, into which the ditch is cut, and the jagged edges of the cutting have led to the statement that the ditch was faced with stonework. Unfortunately the builders of the circle did not cut holes in the limestone for the stones to stand in, and the consequence is that all of them have fallen flat except one, which is leaning. The stones themselves look very old, and as though they had broken up and decayed as they laid on the surface, but this is, no doubt, partly due to the nature of the limestone of which they are composed. As the stones have all fallen and the pits in which they stood are not now to be traced, it is very difficult to fix the circumferential line or the diameter; but, taking the space between the stones in the middle of the ring as the central point, a radius of from 55 to 56 feet approaches very nearly to all the stones, except one, on the southern half of the ring, and the one exception is quite outside any regular curve. For the northern half of the ring it is necessary to prolong the radius from the central stones to the north end by one half, making it 83 or 84 feet, and to describe curves from that point to the east and west ends of the southern semi-circumference; the eastern curve of these two comes near all the stones in that quarter of the ring, but the western curve must be bulged out considerably to touch the stones in that quarter. The general result, however, is an oval ring with diameters in the proportions of four and five, having a central group of stones at a point in the middle of the shortest diameter, two-fifths of the longest diameter from the south and three-fifths of it from the north. This central group of stones has been erroneously described as the remains of a sepulchral chamber, but the appearance of it should have been sufficient to prevent the suggestion being made, and the recent excavations have shown that it was entirely unfounded; a skeleton was, indeed, found a short distance from the stones, but it was obviously a casual and comparatively late interment. I, myself, have never had any doubt that there was here a group of three upright stones, forming a three-sided shrine or "cove," open to a point somewhat north of east, and facing, probably, to the Beltane sunrise (1 May), resembling that which stood in the middle of the northern circle at Avebury, and so completing the likeness between these two circles, a likeness which does not extend to any other circle that I know of, except possibly to Mayburgh, in Westmoreland, where, however, there is no ditch, and where for very many years there has only been one stone remaining of the circles which formerly stood there. Such a "cove" or shrine remains also at Stanton Drew, but outside the circles instead of in the centre of any of them.

Thirty, or perhaps thirty-two, stones of the circle are still represented by recumbent stones or fragments, but there may have been others now lost. The largest of them is about 12 feet long. One of them has two large holes quite through it, with smooth sides, and apparently of artificial formation; another has a pit, or hole, nearly through it. The two side stones of the "cove" are each from 13 to 14 feet long; the third, or back stone, is broken into several pieces.

There are two entrances, one S.S.E., the other N.N.W., and these are both shown by the cutting of the ditch to have been part of the original work.

The crest of the vallum is nearly circular, with an average diameter of about 250 feet; part of it at the south-east (always a wintry or funereal quarter) has been formed into a tumulus some time, but not necessarily a very long time, after the con-

struction of the earthworks, and this tumulus was found in 1845 to contain an interment attributable to the bronze period. The ditch has only yielded neolithic fragments to the recent explorers, and it is therefore most probable that the foundation of the circle goes back to the neolithic period.

A slight bank, which Mr. Gray, who superintended the exploration for the British Association, considers to be of the same age as the circle, goes from it in a south-westerly direction towards a large tumulus, a quarter of a mile or so from the circle, called Gib Hill, in which Mr. Bateman found an interment in 1848, but which he thought was not originally intended for sepulture.



FIG. 1.—ARBORLOW FROM THE TUMULUS LOOKING N.W.

With regard to Arborlow itself, although a skeleton was found near the central stones it evidently had no connection with them, but was a comparatively recent interment, and as no other traces of burial were found during the excavations, it is now reasonably certain, although the diggings were not exhaustive, that sepulture was no part of the original purpose of the monument. The circle at Swinside in Cumberland, and Fernworthy on Dartmoor, have been dug into three or four years ago, but no trace of interment has been found in them; so that the confident assertions of a certain school of archaeologists that all circles were burial places, and that the stones were merely the outer railings of the cemetery, are not borne out by scientific investigation. It is, however, only fair to say that the case is different in Scotland—there most of the circles were primarily sepulchral.

There are, or have been, several small circles on the moors in Derbyshire, many of which doubtless merely surrounded sepulchral tumuli, though some, hardly superior to them in point of size, either of the circles themselves or of the stones composing them, do not appear to have been so certainly places of interment. The principal of these is on



FIG. 2.—ARBORLOW LOOKING S.E. TO THE TUMULUS.

Eyam Moor, and is called the "Wet Withins"; it consists of a circular bank of earth and stones, 6 feet wide and 2 feet high and about 100 feet in diameter inside, on the inner slope of which stand or lie nine small stones, the largest 5 feet long, 2 feet high, and less than 1 foot thick—the survivors of perhaps a score. A hole in the centre, with a few small stones scattered round, marks the site of a small heap of stones according to J. Wilson (1719-1783), or of a single large stone according to Rooke Pennington (1874), or of a cist according to Llewellyn Jewitt (1880). Fifty-nine feet

N.N.E. of the circle is a large barrow (83 feet \times 46 feet), and on the east were two small groups of stones resembling foundations of circular huts. This circle was slightly described by me in *Anthropologia* in 1873, but much better by Mr. Rooke Pennington in *The Journal of the Anthropological Institute* in 1874.

Another such circle is the "Nine Ladies" on Stanton Moor. It is about 36 feet in diameter, and consists at present of nine stones, none of which are more than 4 feet high, but there were most likely others when it was constructed. Llewellyn Jewitt says there has been a barrow in the centre, containing an interment or interments which has long been disturbed and rifled. I visited this circle in 1901 but did not find any remains of the barrow, though the ground inside the circle is very irregular. About 30 to 40 yards off is a small stone which, like those of the circle, has been placed under the protection of the Ancient Monuments Act and walled round; but a thick plantation of young fir trees, which now covers the formerly bare moor, prevented me from ascertaining its direction from the circle.

Mr. St. George Gray, who superintended the recent excavations at Arborlow, has constructed a most accurate model of the monument, and will contribute a description of it, with illustrations, to MAN for October.

A. L. LEWIS.

Caphtor.

Sayce.

Caphtor—a Correction. By Professor A. H. Sayce, M.A., LL.D.

In the last *Annual* of the British School at Athens (p. 182) I find Mr. H. R. Hall stating that Dr. W. Max Müller was "the first to comment on the occurrence of the name Caphtor in a Ptolemaic inscription at Ombos as Kaptar." This is not the case. I had already pointed out the fact long ago, not only in special articles, but also in books, the sale of which justifies me in calling them well known—*The Higher Criticism and the Verdict of the Monuments*, 6th edition (1893), p. 173, and *The Early History of the Hebrews*, 1st edition (1897), p. 291. That German scholars should be unacquainted with English literature is intelligible, but for an English writer to neglect the works of his own countrymen is not so excusable. I should not, however, have troubled myself to draw attention to this had it not been that, in pointing out the equivalence of the hieroglyphic Kaptar and the biblical Caphtor, I noted another fact which shows that Kaptar is not a transcription of Caphtor, as might have been supposed if it stood alone. Besides Kaptar we find at Kom Ombo the name of Kasluhet, the Casluhim of Genesis, where the difference in the termination excludes the idea of mere transcription.

A. H. SAYCE.

Ceylon.

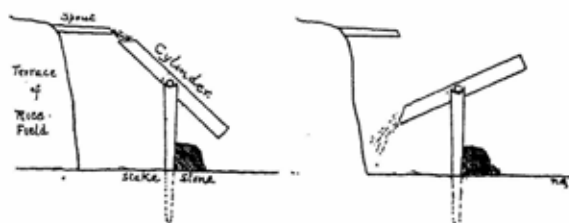
Quick.

Diya-holmana, or Singhalese Hydraulic Scarecrow. By R. Quick, of the Horniman Museum.

The accompanying diagram and photograph are from a model in the Horniman Museum.

№1 FILLING

№2 DISCHARGING.



The apparatus is fixed as shown in No. 1 and, when empty, the lower chamber of the bamboo cylinder is slightly the heavier, but the water entering the upper chamber soon makes the cylinder top-heavy, whereupon it swings on the pivot, and discharges the water, as shown in No. 2, into the irrigation runnels. The cylinder

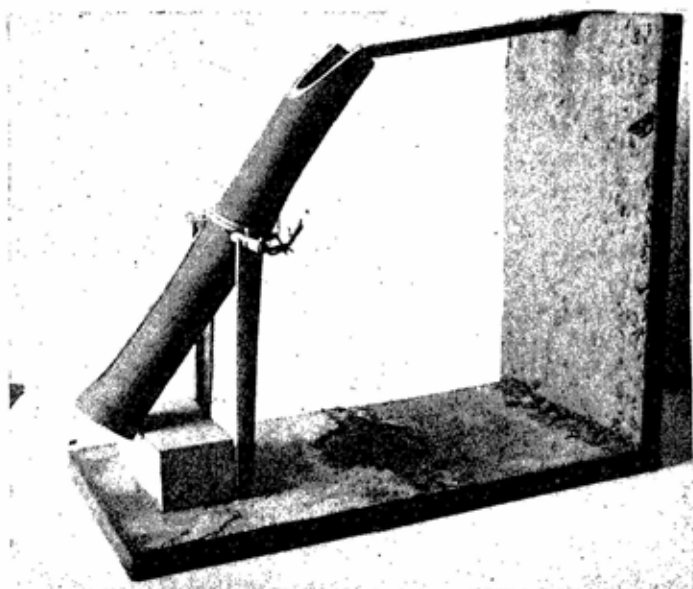
then returns to the first position, and in doing so its base strikes against the stone,

producing a loud clang. continual musical sound.

The name of the instrument *Diya-hol-mana*, I am told, signifies "water - sounding bell," and it is thus a most ingenious and effective scarecrow as well as a musical and skilful method of irrigating the *padi* fields.

Different sizes give different notes, and the effect is not unpleasing, and not unlike a flock of sheep with their various bells of different notes.

The Rev. J. F. W. Gore, of Kandy, who sent the model as a present to Mr. Horniman, tells me it was made by Dingirala of Tennakumbura, near Kandy, in the year 1896, and that it is rather smaller than the average. R. QUICK.



Iceland: Folklore.

Annandale.

Notes on the Folklore of the Vestmanneyjar. By Nelson Annandale, 79
B.A.

The Vestmanneyjar are a small group of rocks and islets lying six miles off the coast of South Iceland, and owe their name to the fact that in the ninth century a party of Irish or Hebridean slaves, who had murdered their master, took refuge in them for a while. Only one of the islands, known as Heimey or Home Isle, is now inhabited, supporting a population of 500 persons, whose families came thither from the north of Iceland* within the last century. They obtain their living by fishing and bird-catching, and it is therefore natural that their superstitions are largely connected with the sea and with the cliffs, on which they kill the puffins, fulmars, and gannets that supply them not only with food and bedding, but also with oil for their cruse lamps and with fuel, which they obtain from the inedible parts of all kinds of sea-fowl, from the exhausted livers of cod and other fish and from the bones of sharks and dogfish, there being neither peat nor firewood on the islands.

In regard to the sea they say that at night certain supernatural beings come ashore to do harm to mankind, and these they call *sjóskrimslí* or sea-goblins, believing that they can take any visible form or remain invisible at will. A man is said to have wrestled with one on a cliff near the village for a whole night some years ago. He saw nothing, but felt that he was struggling for his life, and when he returned home in the morning he was found to be scratched and cut as if by huge talons. Another man, more

* Cf. Mackenzie, *Travels in the Island of Iceland*, pp. 413-5; Edinburgh, 1811. Until quite recently practically all the children born on Heimey died of infantile tetanus, regarding which Mackenzie gives some interesting information. The disease appears to have now become completely obsolete, but the islanders still preserve a curious reminiscence of their northern origin in their colloquial phraseology, for they talk of a visit to Reykjavik as "going south," though it lies almost due north of their present abode.

recently, riding across the island in the dusk, was followed by a thing like an eider duck, but not an eider duck, which he concluded to be a *sjöskrimslí*, and which disappeared as soon as he came in sight of the houses.

Almost every bird has its proper legend in the Vestmanneyjar. The islanders treat the raven, which does not often visit them, with considerable respect, and tell the following story about him :—"There was once a rich Norwegian named Herjolf, who settled on Heimey and took possession of the only spring on the island, building his house beside it. He had a beautiful daughter named Vilborg, who was kind and good to man and beast, her father being a miser, charging his poorer neighbours heavily for the water of his spring in a time of drought, and so amassing great treasure. Vilborg had rescued and tamed a wounded raven, and one day as she sat making shoes by the door this bird flew off with one of them. She ran after it, but it flew on, always just a little in front of her, until she had gone some distance from home. Then an earthquake buried Herjolf and his ill-gained treasure, but Vilborg was saved on account of her kindness to the raven."

The Heimey people still search for the treasure whenever they have nothing else to do, and the Algerian pirates who carried off the greater part of the population of the Vestmanneyjar in July, 1627, appear to have heard rumours of it, for they tortured a priest of Heimey (who afterwards wrote an account of his adventures) to make him reveal the secret place of "his people's gold."

The puffins are believed to have a kingdom of their own on the cliff-tops in which they burrow, their king being pure white, their queen white and yellow, their princes piebald; and it is considered most lucky to capture an albino or "puffin king." The fulmars also have their white "kings," which bring luck to their captors, but their state is not so highly organised. A curious sequence of ideas and facts has linked together the halcyon of the Greeks, and the little auk, a bird which does not breed outside the Arctic circle, but ventures into more temperate regions in the winter, so that the Vestmann folk, never having seen its nest, imagine that it must build a floating one out of its own feathers, and call it *halkjón*, a classical education being less rare in Iceland than might be imagined.

A remarkable legend centres in the skerry called Sulfasker or Gannet Skerry, but also known as Allmenningasker, because it is the property of the community.* This outlying rock is not visited by the fowlers more than three times in a season, as it is distant and dangerous to climb—so much so that special prayers are said as the boat leaves Heimey, and again at the base of the cliff before the ascent begins. In 1898 Mr. Eustace Gurney and I were taken up Sulfasker by a party of fowlers who had gone to take the young gannets they killed, which that day reached nearly 700 head. On the summit of the skerry, which rises to the height of about 300 feet, sheer from the sea, we were asked, before descending, to make a present to the Skerry Priest, and the money we gave was deposited in a small cairn of stones, beside a number of copper coins, iron nails, and other trifles which had been presented by men who had climbed Sulfasker for the first time. The cairn itself was called Skerry Priest, but it represented a giant, the true Skerry Priest, about whom the following legend is told :—At one time no man knew

* The birds and eggs from this rock are distributed as follows :—They are first divided into sixty equal shares, forty-eight of which are distributed among those who occupy crown land as farmers among whom is the priest, though he receives four shares for the ordinary farmer's one; four shares go to the fowlers, four to the boatmen who take them to Sulfasker, two to the constables who wake them on the morning of their expedition, and two to the poor of the Home Isle. The other "bird-mountains" are let by the crown bailiff to the richer inhabitants of Heimey, who either work them themselves or employ poorer neighbours to do so, giving to the men, in lieu of wages, two-thirds of all the fulmars they kill and one-third of all other birds, such as puffins, gannets, guillemots, razor-bills, and shearwaters, which last are esteemed a great delicacy.

the way up Sulfasker, but two bold fowlers at last succeeded in climbing it. As they rested on the top, which was then flat, one of them exclaimed, "It is by God's grace that I have come here!" but his friend replied, "As for me, I had come whether God willed it or no." Then there was an earthquake, and the impious man was shaken off into the sea, and ever since that day the top of Sulfasker has sloped down towards one side; but the good man was held fast by a giant, who was the Skerry Priest, and who showed him the way down the cliff and taught him how to make a path up, which has now disappeared. Afterwards the Skerry Priest would beckon to the people on Heimey when he wished them to come and take the birds on Sulfasker, and then they were sure of a good catch, but if they came without his invitation they got no birds, and some disaster generally overtook them. Every New Year's Eve the Skerry Priest would come over to visit the priest on Heimey in a stone boat, and would return to his rock in the same way, after supping with his colleague.

Here, again, the villain of the legend is removed by an earthquake—a natural mode of exit in a country so troubled by volcanic activity as Iceland. The stone boat, too, is a feature peculiar to shores where pumice is seen floating on the sea, and is interesting, as being an idea which must have been evolved quite independently in regions so remote from one another, in every sense, as Iceland and Tahiti, where the god Tane had his stone canoe, just as the Skerry Priest had his stone boat. The belief that certain rocks are haunted by a giant or a spirit, who must be propitiated or overcome before the birds on the cliff can be taken, was at one time common in Scandinavian Europe; in the Hebrides, where the birding season formerly commenced with an elaborate ceremony of propitiation, it was firmly held, and the legend of Trolshoved, a rock in the Faroes, seems to put it in another light. This rock is believed to be, as its name implies, the head of a troll, who tied two islands together with his hair and attempted to swim off, dragging them behind him; but his neck gave way and his head became a rock, afterwards haunted by a savage bull, which belonged in some mysterious way to him, and which prevented the Faroe people from fowling on the rock until it was overcome and slain by a hero of old. An analogous belief is probably recalled by the fine that persons who climb a steeple for the first time are obliged to pay in some parts of England; but the system is by no means confined to Europe, for the Siamese and Malays who collect edible birds'-nests on the islands of lower Siam do obeisance before a shrine containing conical stones on starting to their work, and make offerings to the spirits of the caves before entering them to take the nests, and, doubtless, there are similar customs in other parts of the world, wherever so dangerous an occupation as the capture of birds that breed in cliffs is practised.

N. ANNANDALE.

REVIEWS.

Mithraism.

Cumont.

Die Mysterien des Mithra, ein Beitrag zur Religionsgeschichte der Römischen Kaiserzeit von Franz Cumont, Professor der alten Geschichte an der Universität Gent: autorisierte deutsche Ausgabe von Georg Gebrich. Leipzig: B. G. Trubner, 1903. 22 x 14 c.m. xvi + 176 pp. With nine illustrations in the text, two plates, and one map. 80

(*Les Mystères de Mithra*. Par F. Cumont. Bruxelles: H. Lamertin, 1900. viii + 84. With one plan. 2nd edition, 1902.)

Professor Cumont doubtless recognised that his great monograph on the Mysteries of Mithra *would be somewhat beyond the reach of those to whom the subject does not present

* *Textes et monuments figurés relatifs aux mystères de Mithra*. Publiés avec une introduction critique. Tome I. Introduction. Tome II. *Textes et monuments*. Bruxelles: H. Lamertin, 1899 et 1896. xxviii + 377. viii + 544 pp. 4to. With 507 illustrations in text, nine photographic plates, and one map.

a very special interest ; and he, therefore, published his conclusions as a separate book, referring his readers to the larger work for the apparatus of his investigations. The small compendium was found to be so useful that a German version was considered desirable ; and whilst this was in progress the original reached its second edition. Herr Gehrich's translation thus embodies not only the labours of Professor Cumont up to May, 1902, but also corrections to mistakes in the second edition, and improvements to the map ; whilst his selection of illustrations has been drawn almost entirely from the rich treasury of the large monograph. The religion, which we generally know under the name of Mithraism, took its origin in the tribes of Irân, and in its present form embodied the religious ideals of the primitive Persian race. But contact with other systems overlaid it with a mass of Semitic, Lydian, and even Hellenic accretions, so that, by the time it met the advancing Roman power in the plateau of Asia Minor and the Euphrates valley, it possessed already a large and complicated body of doctrine and liturgy to which little seems to have been added subsequently. In its Asiatic home the divine hero, Mithra, identified with the power of truth and of light, was but a subordinate personage in the theogony, which was that of the Avesta. But the abstract aloofness of the supreme Ahura-mazda, and the terrible reality of his opponent, Ahriman, made it necessary for the Mazdaic theologians to bring an active deity like Mithra into special prominence ; and he was thus conceived to hold the position of mediator between God and man, and to be the special protector of earthly rulers and dynasties, the upholder of law and truth against anarchy and darkness.

Thus Mithra became to the Mazdaic religion the point of contact between man and a Pantheon, about which the learned and initiated could speculate to their fill, whilst the plain man could content himself with the worship of the great mediator, giver of all the goods of life, and champion of right against wrong ; and in this dualism of religious teaching the system found, for a time, its strength. For the doctrine of the incarnate life of Mithra inculcated purity, self-sacrifice, and courage, a life of action rather than of contemplation, whilst the successive grades of initiation, to all of which but few attained, left the majority in the satisfying darkness of mystery as regards the more difficult matters of faith.

Such, in general, was Mithraism as it first came into contact with the Roman arms, and by its definiteness, and its insistence on order, it appealed at once to the Roman soldiery. After the conquest of Asia Minor, Commagene, Osroene, &c., there also poured into the western slave markets a flood of Asiatic slaves bringing with them the same doctrine.

Its spread was, therefore, confined to centres of trade, and to garrisoned districts, and Professor Cumont's map renders this fact abundantly clear. In Britain, for example, Mithraic inscriptions, reliefs, and other objects have been found only on sites where there were regiments stationed, viz., along the wall of Adrian, at Chester, York, Caerleon, and London. The same is largely true of the province of Africa, but with the difference that, whereas in Britain as in Germany the dedications to Mithra are made by soldiers in the ranks, in Africa the officers alone seem to have followed the cult.

Spain possesses but few monuments of Mithraism, and Gaul only along trade routes like the Rhône. In Italy the cult was sporadic, owing to the diffusion of slaves over the latifundia, whilst in Greece and in Greek-speaking provinces there are hardly any traces of it. But along the northern frontier of the Roman empire, where the garrisons were maintained in force, great numbers of Mithraic sanctuaries have been discovered. In Dacia, along the Danube from its mouth to above Vienna, and along the Rhoetian Limes they occur in surprising numbers ; whilst on the Lower Rhine, in Alsace, and in Switzerland many fortified sites have yielded distinct traces of the worship.

Professor Cumont contends that its spread along this frontier was largely due to the fact that the *Legio XV. Apollinaris*, after some eight years' service in Asia, returned to its old quarters at Carnuntum (25 miles below Vienna) in 71 or 72 A.D., with its ranks

full of Asiatic recruits. Thus planted on the banks of the Danube the new religion took firm root, and rapidly spread to the garrisons lying to the west and north-west. It is certain that Carnuntum was from this time forth a centre of Mithraism, and a number of Mithraic remains on the spot speak eloquently of the strength of its hold upon the soldiery.

From the slave market also the clever Asiatic often passed into government service, and thus we find that numerous fiscal and administrative clerks have left us the memorial of their faith.

But Mithraism had in it a powerful attraction for the emperors themselves. It had always insisted on the special care of Mithra for rule and rulers; and with the growth of the imperial idea grew also the necessity of a religious sanction for it—a theory of “divine right”—and this Mithraism seemed to give. Without the extravagant adulation of Egyptian religion, which adored the ruler as very God, Mithraism offered a compromise whereby the ruler might be considered as the special resting-place of Mithra’s grace, and, indeed, figuratively consubstantial with him. And this view might be held without breaking with the old Græco-Roman Pantheon, for the old gods could be assimilated easily to the Yazatas of Mazdaism, of whose nature none but the initiated knew. In this quibbling manner the emperors of the Third Century strove to uphold the conception of their divinity, and thus we can to some extent account for the seeming impiety of Heliogabalus, the insistence of Aurelian on sun worship, and the use of the arrogant titles “invictus,” “æternus,” transferred from the god to the man. Diocletian, who in 307 A.D. publicly inaugurated a new temple to Mithra at Carnuntum, spoke of the divine hero as “fautor imperii sui”; Julian considered him his “comes” and “conservator,” and it was the fear that this almost monotheistic sun-worship might have become the universal religion of the empire that led triumphant Christianity to wipe it out with greater vigour than any other heathen cult.

Mithraism failed in the fight with Christianity as much from its own weakness as from its opponent’s strength; the separation of its practical from its speculative theology, its exclusion of women from any but the lowest grades of initiation, and its readiness to absorb other systems without due reconciliation, were all fatal faults which would ultimately have caused its ruin. But for the special circumstances of the army and of official life under the empire it presented a better religion than the worn-out cults of Greece and Rome. It awakened in men a sense of sin and of the need of repentance and absolution, it gave them hopes of a resurrection and a life after death, and it stimulated them to the practice of sterner virtues, and in these and other ways it certainly prepared the way for Christianity and a new civilization.

In an appendix on Mithraic art, Professor Cumont points out that the value of the monuments lies in their content rather than their style, Roman art being too dead by the end of the First Century to make good use of the opportunities it presented. On the other hand, Mithraic conventions outlived their religion, and it is to them that we owe much of the quaint motives of early Romanesque carving, just as the speculations of the Mazdaic priests survived in the Middle Ages as astronomy and magic.

Professor Cumont’s book is valuable as giving a clear, if brief, account of our knowledge of this religion, and though, as he says, the materials are all too scanty, yet enough remains for him to be able to throw a most interesting sidelight on the history of the later empire and of the Roman army.

C. H. BLAKISTON.

Africa.

Velten.

Sitten und Gebräuche der Suaheli, nebst einem Anhang über Rechtsgewohnheiten der Suaheli. Von Dr. C. Velten, Lehrer des Suaheli am Seminar für orientalische Sprachen. Göttingen: Vandenhoeck and Ruprecht, 1903.

Dr. Velten’s *Reiseschilderungen der Suaheli* have already been noticed in these pages. The present work is also entirely drawn from native sources and is of con-

siderable value, not only to the anthropologist, but also to the colonial administrator. From the latter point of view the concluding section (p. 357 to end) will be found most important; it is with the rest of the book that we are more immediately concerned.

The people of the Swahili coast, *i.e.*, roughly speaking the coast-line from Patta to the Rovuma, have been more or less under Arab (and to a slighter extent under Persian) influence since the ninth or tenth century. As, therefore, we find, in the chapter just alluded to, a mixture of Mohammedan law and Bantu custom, so, as might be expected, the native language and folklore are tinged throughout with an Arab element. It is not always easy to draw the line between what is indigenous and what is imported, though the native contributors to this volume appear to be conscious of the difference. The customs of the inland tribes (those enumerated are the Wadigo, Wazegeju, Wabondei, Wazigua, Wadoe, Wazaramu, Wangindu, and "Wahiyao" or Yaos) are said to be identical, in the main, with those of the Swahili—"the differences are merely trifling." A remark made a little farther on explains the comparatively slight hold (considering the length of time which has elapsed since the Arab colonisation) which Islam has over these people. It is necessary, we are told, to ask old men and women about the native customs, since the young people of the present day do not know so much about them. "They prefer to follow any newly-introduced fashion that takes their fancy. Formerly they imitated Arab ways, and used Arabic words in their talk. Then they noticed the customs of the Indians, and some who liked them, adopted them. Since the Europeans have come into the country, they have forsaken the Arab and Indian customs and turned to the European. But these are mostly young people. . . . When they come to years of discretion they return to the ways of their ancestors, as they were taught by their parents." All the written amulets (*hirizi*) and charms are purely Arabic in character—as the magic diagram, inscribed with the names of prophets and angels, which is given on p. 6; and many of the "rules of propriety" (*adabu*) have a like origin. The formula used to children when they sneeze is probably indigenous:

"Kua, uwe tiindi,
utindi male
ukalie kiti
cha mkungo, ulingane
na ulanga."

"Grow, be (like) the top (of a tree); may your life be long, and may you sit in the ruler's seat, and (your stature) reach the sky." (The lines differ considerably from the Zanzibar dialect, though the exact locality is not given; *mkungo* for *mfalme*, and *ulanga* for *mbingu* are especially noticeable.) With this may be compared the Zulu custom of saying "*tutuka!*—grow" to a child, when it sneezes. The Baronga also consider it lucky, and say "*butomi ni burongo*—life and sleep (rest)!" The corresponding salutation to parents, on the other hand—"shikamó (= *shika miguu*, literally, "(I) take hold of your feet"—the ordinary form of politeness to a superior), and its answer "*marahaba*," have nothing very distinctive about them.

The chapter on ordeals is interesting for comparison with Bantu usage elsewhere. Five kinds are enumerated, of which the universal *mwavi*-trial is one. It is described as much used by "people from the interior," and the poison is said to be "herb-medicine from the *mwavi*-tree." The account given of its action suggests that it cannot be the same as the *mwavi*-tree (*Mwayi* of the Yaos, *Erythrophlæum guineense*) of the A-Nyahja. The preparation administered by the latter people (an infusion of the pounded bark) causes either violent vomiting (ensuring acquittal), or a speedy death, which is a presumption of guilt. In the Swahili *mwavi* ordeal, the "medicine" burns the guilty person's mouth and throat, while the innocent feels "as though he had drunk water." The ordeal by the *sanga* needle is said to be of native origin and the way in

which it is spoken of perhaps implies that the reporter had only a traditional knowledge of it. At any rate it is not clear what is meant by the needle being "stuck into the eye"—whence, if the person be innocent, it falls out of itself, but, if guilty, it has to be pulled out—having been threaded for that purpose. Probably it is inserted between the eyelid and eyeball; as in the Congo ordeal where "a small bead is inserted under the eyelid, which, if it makes its way behind the eyeball, proves the guilt.*

Of the remaining methods, that by chewing uncooked rice is, we fancy, Indian; in both this and the "ordeal with a needle" (where the lobe of the ear is pierced) the operation is presided over by a *muwalimu*, who reads passages from the Koran at various stages of the proceedings. In the *kiapo cha mundu*, or test with the red-hot hatchet, the text, *Sura xvii.*, 83, is inscribed on the instrument before heating it. This point may show a foreign origin for the ordeal, or it may be a later addition. A similar ordeal among the Congo people (San Salvador) is described by the Rev. W. Holman Bentley. Father Torrend† probably means this, when he says, "Execrable fire-ordeals" "in use in the vicinity of Zanzibar have been mentioned by various writers"—but he gives no reference. He conjectures a Persian origin for the rite, which is, perhaps, not unlikely, but when he attempts to connect the *Barotse*, on the Upper Zambesi, with the *Parsees*, on the strength of their Tonga neighbours' assertion that they "worship fire" (*bayanda mulilo*), and of some forms of ordeal practised by them, we fail to follow him. One of these, by the bye, is not, properly speaking, an ordeal by fire at all, it is the usual *mwani* ordeal, with this difference, that the "suspect" sits on a scaffold, with a fire kindled under it, into which he falls, if overpowered by the poison. The other, that of plunging the hand into boiling water, seems to be of such universal occurrence, that one hesitates to assign its origin to any particular locality.

Among the most interesting sections are those on children's games (p. 30), dances (pp. 144, 182; the latter, the *ngoma za pepo* are those in use for exorcising spirits), funeral rites (p. 269), native ideas of natural phenomena (p. 325), and proverbial or metaphorical expressions (p. 347). Much of the information is somewhat fragmentary, and needs further careful inquiry before its value can be fully ascertained; but enough has been said to show that the book is a useful one to the student. It is scarcely necessary to add that a great deal of it is certainly not suitable for general reading.

A. WERNER.

Pacific.

Meyer.

Zur Nephritfrage (Neu Guinea, Jordansmühl u.a., Alpen, Bibliographisches). Von Dr. A. B. Meyer. *Abhandlungen und Berichte des Königlichen Zoologischen Museums zu Dresden.* Bd. X., Nr. 4, 1903. Berlin: Friedländer & Sohn. 37 × 27 cm. Pp. 32. With two plates and one illustration in the text. 82

Dr. A. B. Meyer, who has written much on the jade-question, has recently contributed to the publications of the museum in Dresden, of which he is the accomplished director, another paper on this interesting subject. The museum is rich in stone implements from New Guinea, the collection comprising nearly 300 specimens, of which a large proportion is composed of nephrite, jadeite, chloromelanite, and closely allied mineral substances. One of the stone-axes is probably the largest on record, measuring 600 mm. in length, and 125 in breadth and 57 in thickness. This specimen came from south New Guinea, but the precise character of the material is not described. Nephrite and similar rocks seem to abound in New Guinea, and the writer traces the geographical distribution of the implements in the island. A curious flat ring of translucent greenish nephrite, probably from New Guinea, is described and figured.

Many interesting discoveries of raw nephrite and similar substances have been made in Europe since Dr. Meyer's last communication on the subject. In 1889 a large block

* Rev. W. Holman Bentley, *Dictionary and Grammar of the Kongo Language*, p. 506. (1887.)

† *Comparative Grammar of the South African Bantu Language*, pp. xlv, 284, 292.

of nephrite, weighing 2,140 kilograms was discovered at Jordansmühl in Silesia, and has been described by Dr. G. F. Kunz, of New York, from whom it passed to the famous Bishop collection. In Styria pebbles of nephrite have been frequently found of late years, and the Joanneum at Graz now contains about 850 specimens from the valley of the Mur. The occasional discovery of raw nephrite and jadeite in Switzerland and north Italy supports Dr. Meyer's view that the prehistoric implements of the lake-dwellers were made from indigenous materials, and not imported from distant sources. Prehistoric man would pick up any suitable pebble for the manufacture of an implement or weapon, and he valued jade only because its properties lent themselves to his purpose.

F. W. R.

Pathology.

Clemow.

The Geography of Disease. By F. C. Clemow, M.D. Cambridge Geographical Series. London and Cambridge: C. J. Clay and Sons, 1903. 20 x 14 cm. **83**
Price 15s.

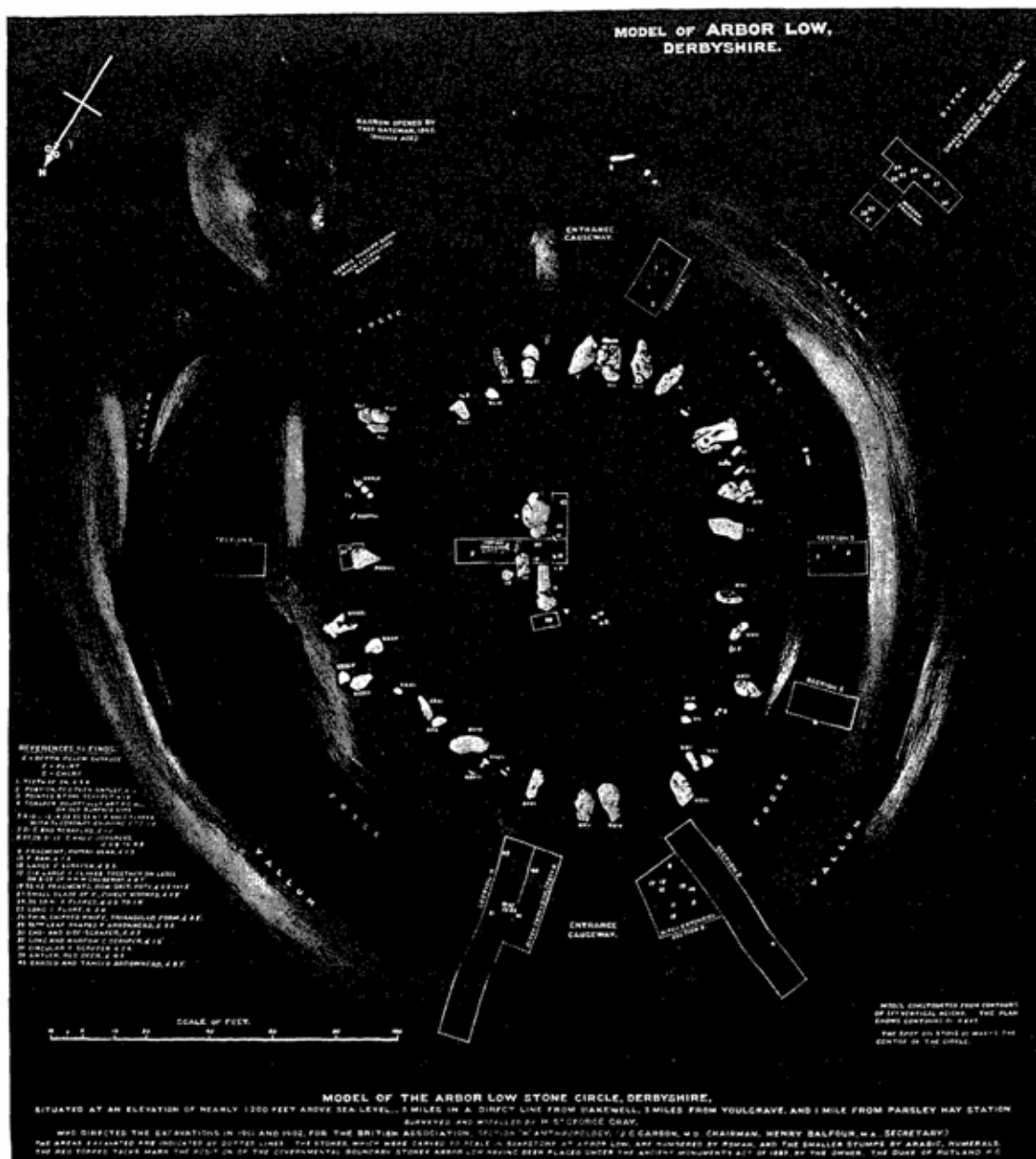
The importance to the anthropologist of some knowledge of the geography of disease as a factor in the distribution of mankind must not be under-estimated. Without doubt variations in the power of resistance to illness have played a great part in determining the variety of the genus *Homo* occupying any given quarter of the globe; probably even more than the food supply and powers of resistance to natural enemies, human or otherwise, on which at all times just stress has been laid. That a slow evolution must have occurred under the influence of natural selection is shown by the difficulty experienced, in many cases apparently amounting to the impossibility, of acclimatising one race in a land inhabited by another. Full information, both as to geographical distribution and the factors which may be supposed to have influenced it will be found in a readily accessible form in this book.

The author discusses at some length the question of racial susceptibility and the influences of communal hygiene in more civilised communities. He shows that while it is doubtful whether there are any diseases which are absolutely peculiar to any one variety of mankind, there are for each race certain ailments to which it is more especially prone, and others from which, even under the same conditions of environment, it enjoys a relative immunity. There is some evidence that this holds good, not only for the main divisions, such as white, yellow, and black, but also for the subdivisions; thus there are differences in the mortality from cancer, tuberculosis, and nervous diseases in the areas of Europe occupied by the Teutonic, Mediterranean, and Alpine races respectively. Dr. Clemow, while presenting the evidence, wisely points out the extreme difficulty of the problem and the impossibility at present of assigning proper values to "race" on the one hand, and to environment, personal and communal, on the other.

He shows that insanitary conditions, and man's conscious efforts to remove these, have played a very large part in determining the distribution of disease. Certain diseases, such as typhoid fever, yellow fever, and malaria, have been markedly reduced by definite orderly public health administration, while others, as tuberculosis, diphtheria, and cancer have, as a whole, increased in spite of all efforts. The author points out the great influence wars and pilgrimages have had in spreading communicable diseases and the great importance of the differences in the channel of such communication, whether by actual contact, water, air, or parasites.

A perusal of this book deepens one's convictions, not only of the enormous influence of disease in bringing about variation by survival in the species, but also of the way every form of human activity seems to react on the physical organism, and to show that the utmost efforts of civilised communities may modify the form, but can in no wise diminish the intensity of the struggle for existence.

F. C. S.



MODEL OF THE ARBOR LOW STONE CIRCLE,
DERBYSHIRE.

ORIGINAL ARTICLES.

England: Archæology. With Plate K.

Gray.

Relief Model of Arbor Low Stone Circle, Derbyshire. By H. St. George Gray.

84

As the illustrated paper appearing in the forthcoming number of *Archæologia* on the excavations which I had the pleasure of conducting on behalf of the British Association at the Arbor Low Stone Circle in 1901-2 will not include any representation of the relief model of the monument, I have been invited to publish an illustrated description of the model in MAN. The model was constructed last winter,

and 450 hours were bestowed on its construction. The three accompanying illustrations show it at three stages in the process of manufacture:—(1) At a time when half the carving was effected; (2) when the carving

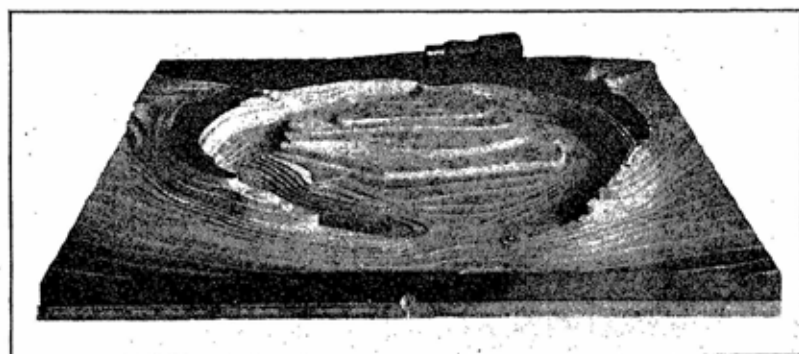


FIG. 1.

ing of the contour levels was finished; and (3) when the model was completed (Plate K).

In order to ensure the possibility of constructing an absolutely correct model of the stone circle and earthworks a somewhat elaborate plan was made on the ground, the complete survey occupying me the greater part of a week. A square, 320 feet (98 mètres) on each side, was formed round the vallum enclosing an area of $2\frac{1}{2}$ acres, then a plan of the stones was commenced at a scale of 240 to 1 (= 20 feet to an inch). The exact position of each stone was taken by means of bearings and triangulation from fixed points, checked by cross-measurements. The plateau on which the megaliths lie is encompassed by a fosse, and averages about 160 feet (49 mètres) in diameter. Contours of 0.5 foot vertical height were considered desirable to indicate the precise shape of the monument and its immediate surroundings within the "square" to show the little knolls and depressions on the vallum in places, to mark the irregularities made by Mr. Bateman on the summit of the tumulus on the S.E. vallum, and to indicate the little dyke of comparatively

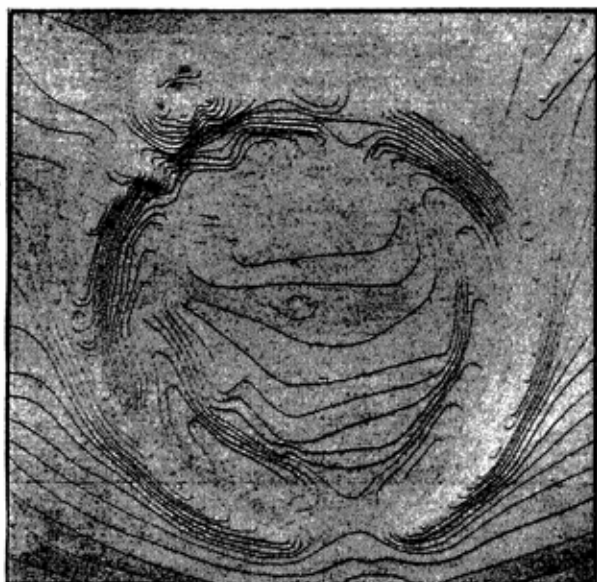


FIG. 2.

the tumulus on the S.E. vallum, and to indicate the little dyke of comparatively

slight relief running in a southerly direction from the vallum of Arbor Low. The contours were surveyed severally, which entailed the necessity of taking some 1,800 levels.*

On commencing this survey the subsequent construction of a relief model was uppermost in my mind. For this purpose a block of solid mahogany, well seasoned, 2 feet square and 3 inches thick, was procured. The contours were drawn by careful measurement on the top of the block. Mahogany is preferable to any other wood, as far as my experience goes, and is far superior to plaster of Paris, being less heavy and less liable to crack if knocked or dropped.†

The lowest-level contour was firstly cut down with chisels to the proper depth to the scale the model was constructed. The highest point on the model was, of course, reckoned as requiring no cutting, being represented by the surface of the original block. Each contour line was followed out and cut to its respective level. Fig. 1 is a photograph of the model when the carving was about half completed; it is specially given to illustrate the progress in the construction of the model and to show the immense amount of work such a model entails. Fig. 2 represents the model in its complete state as regards the carving, each little step representing one foot vertical height.

The next process was to pare down the little steps to a fairly smooth surface, after which sand paper was applied. This part of the work, which occupied three complete days, was done by a carpenter, and was the only stage in connection with the making of the model which I did not do myself (except, of course, the framing in polished mahogany at the finish of the work).

The stones themselves, all recumbent but one (No. XVI.), were modelled to scale in soapstone at Arbor Low, and photographs were taken of many of them. These little stones are fixed into the body of the model, in their proper relative positions and slopes, by undercutting and plaster, some being on a level with the general turf-level, others surrounded by very slight mounds, the majority, however, lying in shallow depressions.

In giving numbers to the stones (Nos. I.-XLVI.) there is no pretension made to count the original number of the stones as put into position by the constructors of the monument; they are simply numbered to facilitate reference and to distinguish one from another in describing them. Some of the very small stones and stumps have been numbered separately (Nos. 1-13).

The next process was the painting of the models of the stones and the grass-green, shaded, surface—in this case six coats of paint. Finally, the details and lettering have been indicated in white paint (Plate K.). The dotted enclosures show the parts excavated for the British Association in 1901 and 1902, viz., two cuttings through the vallum, six across the fosse, four patches of trenching in the interior space, and two excavations outside the vallum. The highest point of the model is on the summit of the tumulus on the S.E. vallum; the lowest, at the northern corner of the model, showing a fall of $24\frac{1}{2}$ feet (7·47 mètres) in the ground from top to lowest part. The Plate does not well show the dyke of slight relief in the south corner, but the lettering and cuttings indicate its position. The entrance causeways will be noticed at the S.S.E. and N.N.W. The size of the photograph (Plate K.) is too small to follow easily the numbered "finds" without the aid of a magnifying glass. The title is printed on polished and ebonized mahogany.

H. ST. GEORGE GRAY.

* The contoured plan will appear in *Archæologia*, vol. 53, part 2.

† Oil-paint in the course of a few years, especially if sufficient oil is not used, will frequently flake away from the plaster, as may be seen in the case of some of the well-known models of earthworks in the museum of the late General Pitt-Rivers at Farnham (N. Dorset).

England: String Figures.

Hingston.

"The Candles" String Figure in Somerset. By Miss Margaret A. Hingston.

85

This variant is rather more elaborate than the Cowgate version, as described by the Rev. J. Gray in his paper in MAN (1903. 66), and as it also shows a little difference in construction it may be worth recording for comparison.

This is the story, with illustrations, which was current in Somerset about forty years ago :—

The Story.

1. A man stole a *Bunch of Candles*.
2. He came home and hung them on a *Peg*.
3. Then he sat down on a *Chair* and went to sleep.
4. When he woke it was getting dark, so he fetched a *Pair of Scissors* to cut off a candle.

5. Just then the policeman came in with his *Truncheon*.

6. He clapped on a *Pair of Handcuffs* and marched him off to prison.

1. Put the string across left palm, one string radial to index, the other ulnar to little finger, with the long loop hanging the dorsal side.

Hold the two ends about 5 or 6 inches from the back of the left hand, and bring the ulnar string forward between the little and ring fingers, and the radial index string forward between the index and middle fingers. Pick up the palmar string in the centre with the right thumb and finger, and pass it over the two left middle fingers. (The dorsal aspect of the left hand is a loop on the little finger, one on two middle fingers, and one on the index, three loops altogether.)

Take up the index loop on the palmar side distal with the index of right hand, and the little finger loop distal with the index of right hand, and pull out tight.

Keep the string stretched with the right fingers. Bend left middle finger distal into index loop, and ring finger distal into little finger loop. Bend little finger over its ulnar string, and index over its radial string. Carry the strings in the right hand to the back of the left hand.

(Now there will be two long loops on the dorsal aspect of the left hand, one enclosing the middle finger and the other the ring finger. There are also three loops, one on the index, one on the two middle fingers, and one on the little finger.)

Put the two long loops distal through the loop on the two middle fingers.

Draw the loop on the two middle fingers to the palmar side over the middle fingers, and draw gently and evenly until you get the *Bunch of Candles*.

2. Put the loop from the right hand on to the left thumb. This is the *Peg* to hang the candles on.

3. Put right index proximal into dorsal side of loop on the middle finger, and right middle finger proximal into dorsal side of loop on ring finger. Lift the two loops gently off the fingers, and extend the figure. The loops on the right fingers form the back of the chair, those on the left the legs, and the one on the thumb the *Chair*.

4. Release thumb, this makes the *Pair of Scissors*.

5. Release left little finger, and the *Truncheon* will be made by extending the figure gently until the loops in the right hand look like the crown on a policeman's truncheon.

6. Release right middle finger and make a *Pair of Handcuffs*.

MARGARET A. HINGSTON.

Egypt.

Hall.

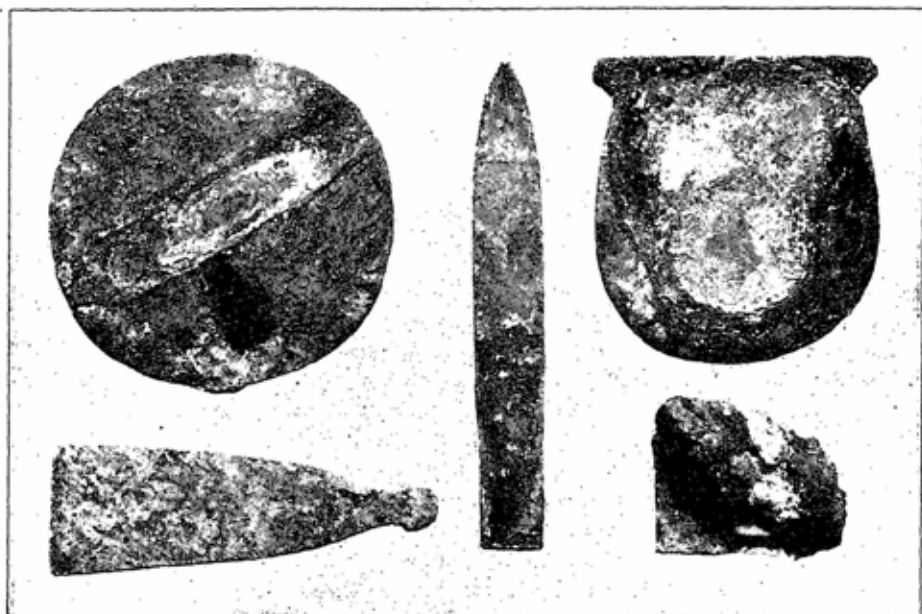
Note on the Early Use of Iron in Egypt. By H. R. Hall, M.A.

86

Now that Professor Petrie has discovered iron in deposits of Vith Dynasty date at Abydos, the contention of those Egyptologists who have always maintained that iron was known to the Egyptians from the earliest times must be acknowledged to be

correct. The fact that iron was known to, and used by, the Egyptians over 2,000 years before it came into use in Europe is very remarkable, and is hard to square with current theories, but it is a fact. Professor Petrie's find is a lump of worked (?) iron, perhaps a wedge, which is rusted on to a bent piece of copper. The other objects of copper found with it are undoubtedly of VIth Dynasty date. They include a mirror, an axe-head, adze-blades, etc., of types intermediate between those of the IVth and those of the XIIth Dynasty (Petrie, *Abydos*, II., p. 33). They apparently belong to a building of Pepi I. (*ibid.*). Each had been carefully wrapped up in linen, the traces of which still remain. Those which have been presented to the British Museum, consisting of the fragment of iron, a mirror, axe-head, adze-blade, and chisel, here illustrated, are exhibited in the Prehistoric Gallery, Case J. The iron is in the lower right-hand corner of the illustration.

This is the third find of iron which can be attributed to the Old Kingdom. In 1837 a fragment of wrought-iron was discovered in an inner joint of the stone blocks in



one of the air-passages which pass upwards from the interior of the Great Pyramid to the outer air.* This is now in the British Museum, Egyptian Department, No. 2433 (3rd Egyptian Room, Case K, 29). In 1882 Professor Maspero found iron in the pyramid of a Vth Dynasty king at Abûsir. Professor Petrie has now found iron in a VIth Dynasty deposit at Abydos.

Until Professor Petrie's discovery it was, perhaps, allowable, in view of the certainty of the comparatively late appearance of iron in Europe, to doubt whether the finds at Giza and Abûsir really dated back to the remote epoch of the Egyptian Old Kingdom. Accordingly, in 1888, Professor Montelius published in the Swedish anthropological publication, *Ymer* (1888, p. 3), an article on the Bronze Age in Egypt, in which he rejected the evidence of the pyramid finds, and maintained "that the Egyptians during the whole period of the Old Kingdom and probably under the Middle Kingdom, also—until about 1500 [more correctly 1700] B.C.—were unacquainted with the use of iron, and only used bronze for their weapons and tools"

* Vyse, *Pyramids of Gizeh*, I., 276; Beck, *Geschichte des Eisens*, I., 85.


(p. 18). His doubts had been anticipated long previously (1862) by Rhind (*Theban Tombs and their Tenants*, p. 227).

These doubts were not, however, shared by those Egyptologists who have specially studied the inscriptions, one of whom, Professor Piehl, of Upsala, at once replied to Montelius in an article entitled, "Bronsålder i Egypten?" (*Ymer*, 1888, p. 94ff.), in which he traversed the latter's conclusions on the authority of the inscriptions, which, he maintained, actually mentioned iron as early as the time of the Vth Dynasty.

This view remained, however, unconfirmed by unchallenged archaeological discovery until the present time. Now, Professor Petrie's find being incontrovertible, it is no longer open to us to say that the two earlier finds are doubtful. The presumption now is that the iron fragments from Abûsir and from the Great Pyramid are of Vth and IVth Dynasty date respectively. The Giza fragment will be about 150 years older than the piece from Abydos.

That iron was known in the time of the Middle Kingdom seems to be shown by Maspero's discovery of "une soie de ciseau brisé et la virole d'un manche de houe, dans le ciment qui reliait deux des pierres de la pyramide de Mohamméria, près d'Esnèh" (*Guide du Visiteur au Musée de Boulaq*, 1883, p. 296). The date of this tomb will be XIIIth to XVIIth Dynasty, circa 2000-1700 B.C.

Montelius's proposition is thus shown to be erroneous. Iron was known to the Egyptians as early as the IVth Dynasty (3700 B.C.) and continued to be known to them thenceforward. Its use was, however, probably by no means common until towards the end of the "New Empire." Professor Petrie (*Abydos*, II., p. 33; pl. ii, 10), notes an iron halbert-blade of Rameses III.'s time (exhibited in the British Museum, with the VIth Dynasty objects described above) as one of the oldest known specimens of an Egyptian iron weapon; its date is about 1200 B.C. Very probably it was during the XIXth Dynasty that its use became more or less general, though it in no way displaced or supplanted bronze. In the long tribute lists of the XVIIIth Dynasty it is never mentioned, but under the XIXth Dynasty it occurs in a religious text at Abu Simbel, in which the god Ptah is made to say that he has formed the limbs of King Rameses II. of electrum, his bones of bronze, and his arm of iron.*

This is the oldest literary mention of iron with regard to which there never has been any doubt whatever. The word used for iron here is  *ba-n-pet*, the original of the demotic *benpi* and the Coptic *Renine* — "iron." Thus, there never has been any doubt that iron was mentioned by the Egyptians at least as early as circa 1300 B.C. But, as has been said above, several Egyptologists specially versed in text-work have always been of the opinion that it is also mentioned in texts of the Old Kingdom. The word which they considered to mean "iron" in the VIth Dynasty Pyramid Texts is *ba*, the first element in the compound word for iron, *ba-n-pet*, which means "*ba* of heaven," i.e., originally ærolitic *ba*.† Lepsius, however, took the word to mean "metal" generally, rather than "iron" specifically, thus differing from Brugsch, who preferred the restricted meaning. But, now that we know that iron was used under the Old Kingdom, it seems most probable that *ba* does mean "iron" in the Pyramid Texts. Very possibly it originally meant only "metal" generally, but under the Old Kingdom was already used in a restricted sense to signify iron, "the metal (of heaven)," the more general meaning being still occasionally used, as in such a phrase as *ba n nub*, "mineral d'or."

H. R. HALL.

* *nbu-à hân-k m uasnu, hes-k m hesmen, det-k ba-n- et.*

† The phrase (occurring in late texts) *ba-n-ta*, which has been taken to mean "*ba* of the earth" (iron ore), is apparently *ba-n-ta-bol*, "foreign *ba*," foreign iron (?).

Nigeria.

Martin.

Notes on Some Native Objects from Northern Nigeria. *Being* **87**
Extracts from a Letter from E. F. Martin, Local Correspondent of the
Anthropological Institute.

Perhaps if I describe some of the many articles of daily use among natives, the result may be of some interest to you. I will start with a coat of mail that I recently acquired. This species of armour is not native-made. The Hausas of the Northern States (Nigeria) wear it in war time for defensive purposes. The chain mail is beautifully made, each separate link being riveted. I bought this specimen from a Hausa trader down from the Kano district. After continual inquiry, I find that these coats of mail (as well as helmets and swords) are dug up by the possessors or their fathers before them. They have no idea how they got there. It seems fairly certain, however, that they are evidences of the presence, at some distant time in the past, of members of a civilisation well in advance of what is found in those parts at the present day. The coat I have secured is in excellent preservation, from the neck right down to the waist; below that, however, it is badly torn and ragged. The fact of these specimens of old armour being found buried, sometimes in groups of half-a-dozen or so, helmets, swords, and all complete, points to the fact that they have not merely filtered through from the north on an occasional caravan, &c., but that the first owners died and were buried where these relics are now being found.

I have also a highly-decorated horse-collar made of rope bound in light blue leather, with four triangular pockets made of red and blue leather, bound round the edges with purple and crimson wool. These pockets are fixed on the collar so as to slide up and down. They contain extracts from the "Koran," and are supposed to act as charms.

I have secured a very beautiful pair of ostrich feather slippers, such as are only worn by the chiefs among the Hausa and kindred races. They are first of all sandals, made of good leather, and well worked. On to the sandal is fixed an "upper," composed entirely of ostrich feathers, clasped at the centre by a piece of ornamental leather work; in this case bright blue, with white metal discs. The ostrich feather here is a sign, if not of royalty, at any rate of wealth and position.

Two lamps that I have secured are very fine specimens of the smith's art. They both contain thirteen bowls, into which the oil is poured, and the dip (cotton) placed. The cotton dip hanging slightly over the lip of the bowl gives the light. These lamps consist of a central trunk supported on a conical pedestal, with three platforms supporting four bowls, each on their trunks, connected with the central tree by branches of metal. The bowl on the top of the tree is larger than the rest. The whole is made of white metal—tin or zinc.

Some fine specimens of "poker work" are to be found about here, especially about Egga district. I have some calabashes worked in this way with a very pleasing and even artistic result.

The people in these parts are excellent grass workers, their hats, mats, baskets, &c., being in some cases very fine specimens of the art of grass plaiting. Circular grass trays—used by the women when separating the husk from the flour just ground—are very typical specimens of grass work, the various coloured grasses interwoven forming very pleasing effects. The shapes and sizes of these trays—called in Hausa, *Lépé*—vary according to the district in which they are made. Whilst all are circular discs, some are quite flat, others slightly bulging and some again nearly bowl-shaped. A strange fact about the ornamental work in these basket-work trays is that, whilst the work starts in a spiral out from the centre of the tray, and this spiral may be of one colour for, say, five turns, then a different colour for another five, and so on, the maker never seems to be able to continue one colour from the next in a complete circle.

The grass hat made in the Nupé and lower Benué provinces, whilst a good type of weaving, is notable for the fact that no attempt is ever made to fit the hat to the forehead, but it is made so large that the top of the hat invariably rests on the crown of the head. It is not meant, in fact, to be worn merely on the head but over a hood or other head covering—turban, &c. In Bornu, however, the hat is made more according to our own methods, one specimen I have secured being broad brimmed and conical shaped. The first mentioned, that of the Nupé and lower Benué districts, is round (bowl) shaped.

I have been making as complete a collection of musical instruments as possible since my arrival, and I propose shortly to give a description of each, with photographs.

E. F. MARTIN.

REVIEWS.

Sociology.

Grierson.

The Silent Trade, a Contribution to the Early History of Human Intercourse. 88
By P. J. Hamilton Grierson. Edinburgh: William Green and Sons, Law
Publishers. 1903. 22 x 14 cm. x + 112 pp.

Mr. Grierson has here put together in a concise form a quantity of material bearing upon the primitive practice of barter without intercourse. He discovers in it the first germs of a desire for peace, in connection with which the neutrality of the market and the protection of the stranger guest also play a prominent part.

Starting with the necessary assumption that such primitive practices are to be found in their simplest form in the hunting peoples who have not adopted agriculture or the pastoral life, he proceeds to sketch the evolution of the group or section of a tribe with its social relations: (i.) within its own limits; (ii.) with other sections of the same tribe; (iii.) with the world outside. This leads us to the question of exchange first within tribal limits and then with foreigners, and here Mr. Grierson treats fully the instances of "silent trade." The numerous similarities of usage between this practice and the primitive market customs lead to a discussion of neutral trade centres, the "market-peace," and the inviolability of the middleman. In a short summary the causes of the silent trade are discussed and various explanations offered, and since the true answer appears to lie in the fact that for purposes of trade the stranger is considered a friend and guest even when naturally a foe, we are carried on to the examination of primitive hospitality and treatment of strangers. This is to a very great extent connected with religious sanctions and thus with the primitive conception of law, both law and religion being crystallisations of custom; and we are left with the conclusion that the silent trade has been one of the principal factors in the breakdown of primitive exclusiveness and the diffusion of the idea of peace.

It is at once evident to the most cursory glance that Mr. Grierson has not formed a mere academic theory in despite of facts. His list of authorities quoted covers fifteen pages at the end of the volume, and there are frequent footnotes with references and citations. There is, indeed, always the danger in dealing with the ethnology of primitive tribes that practices may be misinterpreted, and widely different accounts given by different travellers; nor need an unwillingness to trade with Europeans be construed as an ignorance of any sort of commerce. But on the whole there is a singular concurrence of testimony with regard to the practice of barter without intercourse from parts of the globe so distant as Greenland, Tierra del Fuego, Central Australia, Ceylon, the Congo; whilst we meet with mention of it in Herodotus, Philostratus, Pliny, and a chain of authors from classical times to the present.

It would appear that the simple hunter in his family, or group of families, moving from place to place comes of necessity into contact with other groups of his own tribe, and a relation springs up between them which is at least not hostile if not wholly friendly; and this would account for the earliest form of hospitality which permits a

tribesman of one group to share food and fire with cognate families of a different group. But disinterested generosity is not a primitive virtue, and hospitality looks for a reward; hence the giving and receiving of gifts, which in course of time become customary and are looked upon as an investment bringing a sure return. No sense, indeed, exists of the value of the gift as distinct from the act of giving; the giver may offer a worthless present and demand some valuable object in return. The only control over such actions resides not in law but in public opinion: "Man is the most consummate of all mimics" in the animal world."

From such intercourse within the tribe arise certain notions of property which gradually extend to the definition of hunting rights and boundaries; and, once this conception is firmly grasped, the savage proprietor comes into daily conflict with trespassers whom he seeks to avert by "medicine." But the stranger of another tribe may be unaware of a "tapu" and transgress it; and it is in such ways that the savage comes to regard the stranger whose supernatural protectors are unknown to him as a devil, a monster, at least an enemy. Thus the first attitude of the primitive hunter to the stranger with whom he comes into contact is one of unceasing hostility; the stranger can have no rights or property, he is an outlaw, no "man," and crimes committed against him are even praiseworthy.

Yet it is found at last that the stranger has within his boundaries some commodity that the hunter needs or desires; and if this cannot be obtained by warfare and marauding expeditions, some means less dangerous must be devised. Within the tribe the principle of exchange prevails already; why not apply it to the stranger? Goods are therefore left on the boundary in the hope that the stranger in passing will take them and leave in exchange some of the desired commodity.

Such in outline is Mr. Grierson's explanation of the origin of the silent trade; and it seems to satisfy the facts, though it hypothecates a willingness on both sides, a concurrent wish for barter rather than for battle. If this is really so—and the wide diffusion of the practice makes it probable that the most simple explanation is the truest—man even in his lowest stage of development has a deep-seated desire for commerce that will out, in spite of race prejudices and superstitious terrors. Still it is a point upon which Mr. Grierson hardly throws enough light, though indeed it would be a difficult path to investigate.

From the barter in which neither party sees the other to one in which less secrecy is preserved, though language is not used, is but a short step, and thence a still shorter to barter through a middleman, bilingual, or at least with double sympathies; and once the conception of peaceful exchange has arisen, the market develops with surprising rapidity. Nor are we surprised if in comparatively civilised markets traces still remain of a humbler origin (*cf.* the instance from Tomocotu, p. 64). The idea once promulgated, custom hedged it around with sanctions which in course of time took a religious form; hence the *Hermes Agoraios*, and the Gaulish Mercury who is not only mentioned by Cæsar (as quoted by Mr. Grierson) but still meets us in effigy in the museums of the Rhine and even of our own Roman Wall.

Again, given the trade on the boundary it is not long before the wandering pedlar penetrates far into hostile lands; and it is the hope of gain that leads to his protection. For unless the pedlar is given the same privileges within the foreign state as upon its borders he will not trouble to cross them, and the dwellers in the hinterland are the losers thereby. The old conception of "stranger" as equivalent to enemy must be modified, and for the time at least he must be treated as guest and friend. Elaborate customs of guest-friendship and protectoral duties are formulated, and within their scope the stranger is free to travel, but the moment he transgresses them he is once more regarded as an enemy. It is only when long experience of the benefit of such traffic, as kept within bounds, has shown the futility of race hatred, that the restrictions are relaxed.

Directly or indirectly, the barter that needs no speech leads to the peace of commerce; and Mr. Grierson has done a most useful service to the ethnological world by setting the facts of the case lucidly and clearly before his readers. Perhaps in some instances the growth was more accidental than logical, due to chance intermarriage or temporary alliance, in case of a great danger long since forgotten; but in the main the sequence of events may fairly be supposed to have followed the order which he has sketched out and to give just ground for the conclusions which he draws.

It only remains to add that the book is well got up, and divided not only into chapters but also into numbered sections giving reference to a concise table of contents.

C. H. BLAKISTON.

Malay.

Annandale: Robinson.

Fasciuli Malayenses. By N. Annandale and H. C. Robinson. Part I. Anthropology. Published for the University Press of Liverpool by Longmans, Green & Co. London, 1903. 26 x 20 c.m. Pp. 180. Price 15s. 89

This volume is the first of a series embodying the results of the recent expedition to the Malay Peninsula, undertaken under the auspices of Edinburgh University by Messrs. Annandale and Robinson, and is at once an attractive little book, and a valuable addition to anthropological literature. It can be divided roughly into two parts and an appendix; the first part is descriptive, and deals with the physical characteristics and ethnography of the tribes visited; the second consists of carefully tabulated schedules of measurements taken on head and body, and the resultant indices together with several pages of explanation.

By way of appendix are a short chapter on folklore and two short ethnographical notes, the latter by Mr. Leonard Wray. With regard to the distribution of tribes and the route followed, a preliminary report has already been published by the authors in the *Journal* for 1902, p. 407, but it is worthy of note that the old two-fold division of aborigines into Semang and Sakai is followed, instead of Mr. Skeat's three-fold division into Semang, Sakai, and Jakun; unless the "Primitive Malays" of Johore mentioned on p. 2 are taken as corresponding with the last-named. It is a little unfortunate that the two terms Semang and Sakai should have become current ethnical names, since in the Peninsula they seem to contain little or no ethnic significance; for instance, the Semàn of Upper Perak, a Semang tribe, are called locally "Sakai Jeram" (Sakaïs of the Rapids), and the Pô-Klô, "who are said at Temongoh, the chief Malay village in the district where they occur, to be the 'Orang Sémang,'" are "more commonly called 'Sakai Bukit' or Hill Sakaïs." This confusion lends force to the plea for a complete ethnographic survey of the Peninsula, put forward by the authors on p. 69, before it is too late.

The observations on the distribution of the blow-gun and bow are different from those made by Mr. Skeat, who says, "The chief weapon of the Seman is the bow. . . That "of the Sakai and Jakun the blow-gun or blow-pipe." It is stated that the Hami of Jalor, the Semàn of Upper Perak, both Semang tribes, use the blow-gun, the bow being found never among the former, and very rarely among the latter, and then only when obtained from the Hill Sakaïs; whereas the Pô-klô, classed as Sakaïs, and the Samsams, are the only two tribes mentioned as employing the bow. Among the former the blow-pipe is found as well. Particularly interesting is the chapter on the "Primitive beliefs and customs of the Patani fishermen" who are "Malays, that is to say, Mahomedans." Among this people is current a system of "prohibitions" (the author wisely avoids the term "tabu") in accordance with which certain families are named after certain fish which they will on no account eat, and from killing which they usually refrain. The fishermen are particularly careful to avoid mentioning certain words, mostly names of animals, when on

* *The Wild Tribes of the Malay Peninsula*, *Journ. Anthr. Inst.*, XXXII., p. 129.

the water, and are obliged to express their meaning by a system of periphrases, almost amounting to another language, called *balik*. Another odd superstition is that in accordance with which they refrain from whistling when at sea for fear of calling the *wrong* wind; whereas at Trang, on the opposite side of the Peninsula, the custom of "whistling for a wind" prevails, as among our own sailors in the days of sailing ships. The chapter entitled "The Religion and Magic among the Malays of the Patani States," contains a useful essay on the various kinds of "soul" which is supposed to inhabit the body, and the somewhat obscure nature of each, including the *badi* or evil element present in all men and not a few animals, which becomes especially dangerous to the living when freed by a violent death. The explanation and discussion of the physical measurements of the living and of certain skulls and pelvises, is a very painstaking piece of work. The illustrations, mostly from photographs by the author, are good and to the point; it seems rather unfortunate that it was found impossible to include the map which should have accompanied the volume. The succeeding parts will be awaited with interest.

T. A. J.

PROCEEDINGS OF SOCIETIES.

Proceedings.

British Association.

Anthropology at the British Association: Southport Meeting, September 9th to 16th, 1903.

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The Anthropological Section of the British Association met in the Town Hall, Southport, provided a full programme of rather more than average quality, and attracted large audiences.

The address of the president of the section, Professor Johnson Symington, M.D., F.R.S., dealt with the relations which exist between the human brain and skull at various stages of development. It is summarized in *The Times* of September 11th, and printed in full in *Nature* (of October 1st), and in the *Proceedings of the British Association* (Southport), 1903. The summary of the proceedings, which follows, is classified according to subjects, and indicates in square brackets the destination of the full text of each paper so far as it is determined as yet.

PHYSICAL ANTHROPOLOGY.

Anthropometric Investigations among the Native Troops of the Egyptian Army. (Report of a Committee.)—The material upon which the report was based will be found in *Journ. Anthr. Inst.*, XXXIII., 1903, pp. 82-89. [*Proc. Brit. Assoc.* in full.]

Pigmentation Survey of the School Children of Scotland. (Report of a Committee.)—The subdivision of Scotland into 110 numbered districts has now been completed. As soon as satisfactory colour-cards have been received the schedules will be sent out and the survey carried out as rapidly as possible. [*Proc. Brit. Assoc.*]

WILLIAM WRIGHT, M.B., M.Sc., F.R.C.S.—*Skulls from Round Barrows in East Yorkshire.* The skulls upon which these remarks were offered are some eighty in number, and are now in the Mortimer Museum at Driffield. [*Journ. Anthr. Inst.*]

NELSON ANNANDALE, B.A.—*Remarks on a Collection of Skulls from the Malay Peninsula.* These skulls were obtained by Mr. H. C. Robinson and Mr. Annandale in the Patani States, the population of which is very mixed, consisting partly of so-called Malays and partly of so-called Siamese, the difference between these two peoples being chiefly one of religion. The skulls fall naturally into four groups, one of which, represented by three adult specimens, shows many primitive characters, and is especially remarkable for the great development of the cerebella part of the occiput, agreeing in this character with a series of Orang-Laut skulls from the State of Trang, on the west coast of the Malay Peninsula, which the author has recently described in brief (*Fasciculi Malayenses: Anthropology, Part I.*). An interesting feature of the series at present

under discussion, and also, so far as can be seen, of the Orang-Laut specimens, is the large proportion of individuals in which the third molar has not developed normally. Though the Malay and Siamese skulls show certain resemblances to those representing the jungle tribes of the Malay Peninsula, they are separated from them by having a much higher cephalic index and a greater cubic capacity, and by other differences of racial importance. [*Fasciculi Malayenses: Anthropology.* Forthcoming.]

E. J. EVATT, M.D.—*Some Observations on the Pads and Papillary Ridges on the Palm of the Hand.* During the course of development of the hand eleven well-defined pads or cushions appear on the palm. The disposition and form of the pads, when best marked in the foetus, correspond very closely with that which obtains in certain lower animals (*e.g.* mouse), and the pads in both cases are probably morphologically equivalent, and, further, in man's remote ancestors possibly served similar functions. In the adult the pads may be regarded as vestigial.

It is probable that when the hand began to be used as an organ of prehension, rather than of locomotion, the deep layer of the epidermis invaded the corium in a fluted form, and in this way the close and complicated papillae were differentiated. The interlocking of the corium with the epidermis serves probably to strengthen the connection between the two.

The interlocking ridges or deep flutings are at first comparatively simple in their arrangement, and tend to lie transversely to the long axis of the limb, even on the sites of the original pads where the patterns eventually assumed most complex forms. Later on, yet long before the ridges appear on the surface, the deep flutings have assumed the patterns characteristic of the adult papillary ridges.

The papillary patterns appear on the surface at about the eighteenth week, and are formed by the intervening epidermal tissue sinking in between the buttress-like processes of the underlying flutings, and they thus come to be the counterpart of the perfected patterns upon which they are moulded.

The convexities of the patterns on the pads of the fingers are directed distally, while the convexities of the patterns over the remaining pads take a proximal direction; that is, in grasping, the convexities are directed in lines of least resistance; it would, therefore, seem probable that as the hand became an organ of prehension the flutings assumed the forms already described as the result of mechanical forces.

W. L. H. DUCKWORTH, M.A.—*Report on Anthropological Work in Athens and in Crete.* This forms part of the Report of the Committee on Archaeological and Ethnographical Researches in Crete (*vide* below). The methods on which it is based will be published in full in *Journ. Anthr. Inst.*

ARCHÆOLOGY.

PALÆOLITHIC.

MRS. STOPES.—*Palæolithic Implements from the Shelly Gravel Pit at Swanscombe, Kent.* The late Mr. Stopes on April 27th, 1900, discovered a newly opened section of sand and gravel containing many remains of animal mollusca and other fossils interstratified with flint implements of various kinds. Mrs. Stopes exhibited the following varieties:—(1) Ordinary axe or hache type; (2) fine smaller, of same shape; (3) broad leaf-shaped type; (4) ovate types; (5) boat-shaped type, pointed at each end; (6) discs; (7) large many-angled projectiles; (8) very fine-pointed stones as awls; (9) worked as if for graving tools; (10) worked as if to clear marrow bones; (11) scrapers, spokeshaves, and combined stones in all colours and shades of flint and patina—white, cream, ochreous, brown, black. Many of them are derived and waterworn, many are glaciated.

As these are associated with a fauna, containing many extinct species, Mr. Stopes considered that his discovery pushed back the geologic date of man's appearance in the

lower Thames valley to a period much earlier than has hitherto been supposed. The pit is now entirely worked out, and all future theories built on its discovery must be verified from specimens already in hand. The full list of the fauna is published in *Proc. Brit. Assoc.*

Mrs. STOPES.—*Saw-edged Palæoliths.* Among the stones collected by Mr. Stopes during the last two years of his life, and left by him at Swanscombe, are a beautiful series of saw-edged palæolithic flakes and implements from the Craylands gravel pit at Swanscombe. The roughnesses are not the result of accident or use, but are intentional serration, generally on a straight edge, though sometimes continued into the spokeshaves and scrapers so frequently combined in the implements of the period.

LLEWELLYN TREACHER, F.G.S.—*On the Occurrence of Stone Implements in the Thames Valley between Reading and Maidenhead.* [MAN.]

EGYPTOLOGY.

PROFESSOR W. M. FLINDERS PETRIE, D.C.L., LL.D., F.R.S.—*The Temples of Abydos.* After Mariette had worked on the ground of the Osiris temple at Abydos, he declared that nothing remained of the old temple, that even the foundations had been destroyed to the roots, and that any further research was impossible. From that very ground the work of the past winter has produced foundations of the successive periods of the temple, one below the other, occupying nearly twenty feet depth of soil. The examination and recording of these buildings has required over 4,000 measurements and 1,000 levellings. The highest temple was of Amasis (twenty-sixth dynasty), then Rameses III. (twentieth dynasty), then Amenhotep III., Thothmes III., and Amenhotep I. (eighteenth dynasty), then Sebekhotep III. and Usertesen I. (thirteenth to twelfth dynasty), then Sankhkara (eleventh dynasty), then Mentuhotep III. (eleventh dynasty), then Pepy (sixth dynasty), then the temple of the fourth dynasty, below, that of the second dynasty, and at the base of all the oldest temple of the first dynasty. Thus the site was continually re-used during 4,000 years; each of these periods of buildings followed entirely different lines, and the successive plans had scarcely any relation one to another.

The principal results are in the first dynasty. The school of fine ivory carving at that time shows work equal to any that succeeded it in later history. The appreciation of form, the delicacy of the muscular curves, and the power of expression, is as good as in the best classical or Renaissance carvings. The art of glazing was applied to large wall tiles, used for covering brick walls, and to vases as shown by part of a large vase with the name of Menes. The use of two-colour glazes and purple inlay in green appears in the name of Menes. Hence, glazing was as advanced at the beginning of the first dynasty, about 4700 B.C., as it was for 3,000 years later, until the polychrome glazes of the eighteenth dynasty. The European relations of Egypt are further illustrated by finding the same black pottery in the first dynasty that is known in Crete as late neolithic. The camel is shown in the first dynasty by a well-modelled head; hitherto it was not proved to have been in Egypt till about 4,000 years later.

In the well-known age of the fourth dynasty we have for the first time the portrait of the best-known of all the kings, Cheops or Khufu, whose appearance, however, was as yet quite unknown. A minutely-carved ivory figure, the face of which is only a third of an inch high, shows his character in an astonishing manner. The energy, decision, and driving power is, perhaps, stronger than in any other portrait that we know. The tradition of his closing the temples and forbidding sacrifices is fully confirmed by finding that no large temple existed in the fourth dynasty such as those of the earlier or later times; only a bed of vegetable ashes is found in a cell, and throughout it hundreds of clay *figulina* as substitutes for sacrifices, not a single bone of an animal occurring in the whole mass.

The worship in the temple of Abydos was originally that of the jackal god, Upuaut, "the opener of ways," who showed the paths in the desert for the souls to go to the west. Osiris does not appear in any temple inscription for 2,000 years, and is not prominent till yet later. Some large decrees of the fifth to sixth dynasties are found, and the oldest piece of certainly dated iron, apparently a wedge, of the sixth dynasty, about 3400 B.C. (See MAN, 1903. 86, above.) This site has fully shown how important it is to dissect minutely a temple site in which only earth remains, and where at first the absence of stone walls might lead to the idea that nothing was left there. The art of the beginning of the Egyptian monarchy lay hidden in that ground.

PROFESSOR W. M. FLINDERS PETRIE, D.C.L., LL.D., F.R.S.—*The Beginning of the Egyptian Kingdom*. For generations past the origins of Egyptian civilisation had been a mystery; the earliest period then known, the pyramid times, showed a very high civilisation, and its rise was entirely unknown. In the past ten years most of the stages which led from a savage state up to the highest development have been brought to light. The discovery of the prehistoric age, and its division into regular sequence of remains, has filled up a period of over 2,000 years, which—beginning with men in goat skins with the simplest pottery—ran through a wealthy and elaborate age of civilisation, and was in decadence when it was overthrown by the dynastic Egyptians.

The age of the dynastic power has been brought to light in the remains of the Royal tombs of the first and second dynasties, and probably before the first dynasty, which were excavated at Abydos in 1900-1. The connection of the close of the prehistoric scale of sequence with the early kings has been closely settled by the pottery, and its history shown in the stratified ruins of the earliest town of Abydos; so that we pass without a break from the sequence-dates of the prehistoric age to the historic reigns of the kings. Four kings' names are found, which, from the nature of their remains and their tombs, appear to belong to the dynasty of ten kings which preceded Menes, the first king of all Egypt.

Of the first dynasty all the eight kings have been identified; their tombs, vases, readings, and officials are all now familiar to us; and we can trace the gradual changes between one reign and another as clearly as we can during the last century or two. The growth of the use of writing can be well seen in the slabs, the impressions of over 200 of which have been collected. At first only a single sign for a proper name of a king; then a more complex name; then the vizier named with the king; next the titles of various officials, and in the end of the second dynasty full names and titles in a style as complete as in any later age. The art of the dynastic people was entirely different from any of the prehistoric age, though it united with it and took over some features of it. Broadly, the predynastic peoples were mechanical, and the dynastic race was artistic; and even in the earliest books of the kings there is ability of the best style, though still archaic. By the end of the reign of Mena and under his successor the artistic types had become fairly fixed, and they remained the pattern book the Egyptian received at each successive renewal of art during 4,000 years. The most completed stage was in the middle of the first dynasty, and at its close there is certain degradation. The state of art between the first and the fourth dynasties is not yet clear; it seems to have become conventional and probably devitalised, until it made a fresh start with the real expansion of activity under the pyramid builders. The royal tombs of the early kings are enlarged forms of the prehistoric graves. A pit in the ground had, during the prehistoric age, been improved on by making it a large chamber, lined with mats, roofed with timber and brushwood, and furnished with an abundance of vases and objects. The earliest royal tombs are much the same, lined and floored with timber; the offerings being dropped in between the timber lining and the side of the pit. Then regular cells were built for the offerings; next a row of small chambers apart from the tomb, and lastly an elaborate series of stone chambers of various sizes. The tomb originally had no entrance; then a sloping hole

leads to it, next a stairway, and lastly a long sloping passage as in the pyramids. The outer form was at first a slightly raised heap over the roof of the tomb. This was next walled round to retain the earth; after that the walling was raised and formed a block of brickwork with sloping sides on the early brick Mastaba. This later became expanded by additions round it, and extensions upward, so as to be a mass of concentric courts; and, when translated into stone at the end of the third dynasty, it suggested a pyramidal outline, and so originated the pyramid type.

C. S. MYERS, M.D.—*Antiquities near Kharga, in the Great Oasis*. At the eastern entrance to the oasis is a large buttressed fort-like ruin, called by the natives El Deir, i.e., the monastery. Its walls have a thickness of 12 feet, it covers about 190 square feet. The neighbourhood abounds in worked flint implements.

On a rising piece of ground about three miles north of the village of Kharga stands the early Christian (Nestorian) necropolis, now called El Baguat. It consists of streets of well-preserved tombs and funereal chapels of unburnt bricks, formerly faced with plaster. Remains of mummy cloths can be seen. Niches are built into the walls, probably to receive lamps and gifts of food for the dead. The interiors of the tombs are decorated with the Egyptian *ankh*, birds, vine-tendrils, &c. There is a large chapel and a tomb covered with frescoes of Biblical scenes, photographs of which were exhibited. The buildings may be attributed approximately to the seventh century.

Somewhat nearer Kharga stands the well-preserved temple of Hibis, begun by Darius I. and completed by Darius II., one of the most important monuments of the Persian dynasty in Egypt.

For a fuller account of this district, see MAN, 1901. 91.

JOHN GARSTANG, B.A., B. Litt., F.S.A.—*Egyptian Burial Customs*. For the substance of this paper, see MAN, 1903. 54, 74.

MEDITERRANEAN LANDS.

Archæological and Ethnological Researches in Crete (Report of a Committee).—The grant of 100*l.* which was assigned to the Committee was applied in equal parts in aid of two distinct researches:—

(1.) To enable Dr. Arthur Evans to continue his excavation of the Palace of Knossos and its surroundings a sum of 50*l.* was paid over to the treasurer of the Cretan Exploration Fund, and duly expended in the campaign of 1903.

(2.) The other sum of 50*l.* was placed at the disposal of Mr. W. L. H. Duckworth, M.A., Fellow of Jesus College, Cambridge, and University Lecturer in Anthropology who undertook, in consideration of this grant, and of a grant from the British School of Archaeology in Athens, to make a study of the human remains which were being discovered in prehistoric burial-places in the British School's excavations at Palæokastro, in Eastern Crete; and also to make a preliminary study of the anthropography of modern Crete and other parts of the Ægean area.

The Committee has been reappointed with a further grant of 100*l.* Report in full in *Proc. Brit. Assoc.*, 1903 (Southport), p. 466, and previous reports. For Dr. Evans' work see also *British School Annual* (Athens), VI-IX. For Mr. Duckworth's work see above, p. 155.

R. C. BOSANQUET, M.A., F.S.A.—*Exploration in the East of Crete*. The fourth Cretan campaign of the British School at Athens lasted from March to June, 1903. The headquarters of the expedition were again at Palæokastro on the east coast. The work done may be summarised as follows:—

1. The excavation of the settlement discovered last year at Roussolakkos was continued with the help of Mr. M. N. Tod and Mr. R. M. Dawkins. It proves to be a considerable town, regularly laid out in streets and blocks. The streets are narrow, from 5 to 12 feet wide, well paved, with a raised footpath at one side and a deep gutter

at the other. One main street has been cleared for over 150 yards. Each block has a frontage of from 120 to 180 feet, and contains three or more houses. The general plan of the town and parts of the houses date from the latter part of the Kamáres period, but there was extensive rebuilding during the Mycenaean period. House-fronts in ashlar masonry, bath-rooms, drainage arrangements, and a great variety of domestic utensils, indicate widespread prosperity and comfort. The inhabitants had wheat and peas; they made oil and probably wine. They imported obsidian from Melos, green porphyry from the Peloponnese, and liparite from the Lipari Islands. Their wealth was probably derived from trade with Egypt.

Marine designs, such as rocks, corals and seaweed, shells and cuttlefish, predominate on the Mycenaean vases found this year. The yield of pottery was exceptionally large; Mr. C. T. Currelly has made coloured drawings of the finer specimens.

2. The ossuaries outside the town were further excavated by Mr. W. L. H. Duckworth.

3. The surrounding region was explored. A pre-Mycenaean sanctuary was discovered on the hill of Petsofá, above the town, and remains of an equally early purple factory on the island of Koufonisi; the former will be described by Mr. J. L. Myres, the latter by Mr. Bosanquet; Mr. C. T. Currelly took part in both investigations. Caves and rock-shelters were examined in the limestone plateau of the interior, and a Mycenaean farmstead was excavated at Kouraméno.

4. The physical characteristics of the present population were studied by Mr. Duckworth, and their dialect by Mr. Dawkins. [*British School Annual* (Athens), 1903, and *Proc. Brit. Assoc.*, 1902 (Belfast), VIII.-IX.]

R. C. BOSANQUET, M.A., F.S.A.—*An Early Purple-Fishery*. Leuke, the "White Isle" (modern Kouphonisi), off the south-east coast of Crete, was an important fishing-station in antiquity. The tithes levied on the catch of fish and of purple-shell, mentioned in an inscription of about 350 B.C., must have been very profitable, for the possession of the island was the subject of a long and bitter dispute among three neighbouring cities.

Last May, among sand-hills on the north shore was found a bank of shells, some whole, but mostly crushed, of the variety *Murex trunculus*, which is known to have been used in the manufacture of the purple dye. Scattered through the heap were fragments of pottery and of a steatite bowl which marked it as not only pre-Hellenic but pre-Phoenician. Further digging within a few yards of the heap brought to light characteristic Cretan vases of the Kamáres type and the foundations of a house.

The evidence shows that the extraction of the purple-juice was practised in Crete at least as early as 1600 B.C. Hitherto the Phoenicians have been credited with the discovery of "Tyrian purple." It appears, however, that in this matter, as in the art of writing, and perhaps in other inventions attributed to the Phoenicians by Greek authors, the Minoans of Crete were the real pioneers.

JOHN L. MYRES, M.A., F.S.A.—*On a pre-Mycenaean Sanctuary with Votive Terra-Cottas at Palaeokastro, in Eastern Crete*. This sanctuary stands on the summit of the hill called Petsofá, which was excavated in April 1903. Within the inclosure were found (from the bottom upwards) (1) a layer of undisturbed soil; (2) a layer of blackened ashy earth, apparently the remains of a large hearth or bonfire, full of whole and broken terra-cotta figurines, with painting of the Minoan (pre-Mycenaean) technique; (3) a layer of disturbed soil obliterating the ashy layer and containing fragments of its figurines; (4) over all a rubble building of early Mycenaean date,* one room of which still retained its plastered and whitewashed floor, with a plastered bench round three sides, and the remains of a door. A column-base from an earlier building was found built into its foundations.

* Cf. *Ann. Brit. School of Archaeology in Athens*, vol. viii., p. 311, fig. 24.

The terra-cottas include figures of men and women in characteristic pre-Mycenæan costume, and completed in the case of the women by gigantic and very stylish hats. Other terra-cottas represented miniature animals, vases, and other objects of daily use, together with the horns and legs of a larger series of oxen, the bodies of which appear to have been completely cleared away from the ash-heap from time to time. A very large number of quite plain clay balls, of about the size of a marble, seem to be votive like the other offerings; they may represent occasions of prayer or thanksgiving which defied the ingenuity of the modeller. [*British School Annual* (Athens), IX.]

R. S. CONWAY, Litt.D.—*The Ethnology of Early Italy and its Linguistic Relations to that of Britain*. [*Proc. Brit. Assoc.*]

NORTHERN EUROPE.

GEORGE CLINCH, F.G.S.—*Coldrum, Kent, and its Relation to Stonehenge*. [MAN.]

T. ASHBY, JUN., M.A., F.S.A.—*Excavations at Caerwent, Monmouthshire, 1899–1903*. [MAN.]

JOHN GARSTANG, B.A., B.Litt., F.S.A.—*Ribchester, the Roman Fortress Bremetennacum*. Excavations made in 1898–99 have now shown that the station at Ribchester conformed with the general scheme of frontier defences of the Roman Empire. It was one of a series of such fortresses, in methodical arrangement, which with the wall of Hadrian formed the northern frontier defences of Roman Britain against the hill tribes of the north.

The class of fortress to which Ribchester belongs is severe rectangular shape with internal buttresses and mural towers, magnificent double-arched gates, a stout wall not very high, with parapet and guard chambers upon its length. In large examples of this class, of which Ribchester is one, the interior was filled with stone-built barrack-rooms and stables arranged regularly in rows and streets. In the centre was the large *prætorium*, the headquarters of the commander of the division which constituted the garrison. On one side was commonly a large storehouse or granary, and at Ribchester (quite exceptionally) there seems to have been a temple within the walls. Another subclass of this period is found to be of smaller area—about three acres only—with the outer walls and *prætorium* only of stone.

It was probably about the period of the Antonines that Bremetennacum was finally built. There is no definite evidence of its earlier origins, but it is known that a detachment of the Sixth Legion (from York) completed some building work under Calpurnius Agricola in the middle of the second century. It was connected in the military scheme by roads into the Roman stations at Manchester (*Mancunium*) and at Wigan (*Coccium*) to the south, with Overborough (*Galacum*) and Lancaster (? *Rigodunum*) to the north, and directly with the legionary headquarters at York (*Eboracum*) by the road over the hills through Ilkley (? *Olicana*).

A full description of the excavations and recent discoveries may be found in the excursion handbook for the Southport Meeting of the British Association.

MISS A. A. BULLEY.—*Some Points about Crosses, chiefly Celtic*. 1. *Celtic crosses*.—From a survey of examples from Cornwall, Wales, the Isle of Man, Scotland, and Ireland the author inferred that in Celtic crosses—(i.) the circle is not a mere adjunct but is of at least equal importance with the cross. The persistence of such a form without meaning points to an earlier period when the form represented an idea of primary importance. The circle is therefore inferred to be here a root idea. (ii.) The long-shafted or Latin type appears to be an independent development from the cross-with-circle-and-equal arms.

2. *Non-Celtic crosses*, on the other hand, exhibit lesser importance and weaker treatment of the circle.

[A report of the other papers read before the Anthropological Section of the British Association at the Southport Meeting will appear in a subsequent number of MAN.]



FIG. 1.



FIG. 2.

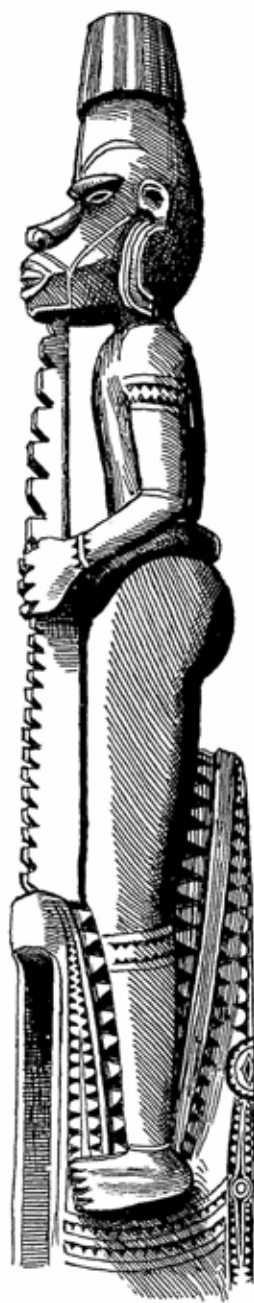


FIG. 3.



FIG. 4.

FOOD TROUGH FROM RUBIANA, NEW GEORGIA.

ORIGINAL ARTICLES.

Solomon Islands.

With Plate L.

Edge-Partington.

Food Trough from Rubiana, New Georgia. By J. Edge-Partington.

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By the liberality of Admiral Lord Charles Scott, the national collection at the British Museum has been enriched by a donation of the greatest interest. The gift consists of a food trough from Rubiana Island, the total length of which is 25 feet 5 inches, with an inner measurement of 16 feet, the breadth at the top, outside measurement, is 8 inches, decreasing slightly towards the bottom to $6\frac{1}{2}$ inches; the corresponding inside measurements are respectively $6\frac{1}{2}$ and 3 inches and the height is 9 inches (Fig. 1).

The trough is cut from one solid log of wood, and the ends beyond the cavity are carved to represent the head and tail of a crocodile. The head of the crocodile (Fig. 2) is shown with open jaws grasping the head of a man, carved and inlaid with pearl shell in exact imitation of the preserved heads peculiar to this district. The eyes of the crocodile are formed of inlaid pieces of pearl shell and the rest of the head is covered with elaborate carving representing scales, among which the eye of the frigate bird occasionally appears. The fore-legs are shown in relief, and between the shoulders are four small upright projections, flat at the top, arranged in a square, the sides of which are parallel to the sides of the trough. The whole of the head is coloured red and light bluish-green.

At the other end of the trough and from the upper edge projects the tail (Fig. 3) (coloured green), clasped by a full-length human figure (coloured black) in a supine position. The legs of this figure, from the knees downwards, are shown in relief along either side of the trough, the lower portion of which is here carved to represent the inverted head of a shark in the act of swallowing the figure. Owing to the presence of the shark's head the hind legs of the crocodile have been omitted. The man's head is of the prognathous type exemplified in the small figures attached to the prows of canoes.

With regard to what may be described as the body of the crocodile, each side is ornamented on the exterior with five human busts (Fig. 4) carved in relief at equal distances and coloured black; these figures are represented with large circular ear plugs and the breast ornament (*bakhea*) peculiar to this locality (coloured red), their arms, slightly flexed at the elbow, are extended on either side, and in their hands they hold weapons and ornaments of various descriptions. The upper edges of the trough are coloured red, and the lower are ornamented with a band of carving similar to that on the crocodile's head; the uncarved portion of the surface bears traces of a white pigment.

As far as I am aware, this is the first specimen of this description that has left the Solomon Islands. Mr. Woodford mentions having seen such a trough, perhaps this very specimen, on Rubiana Island in February 1887 (*Proc. Roy. Geo. Soc.*, X., n.s. p. 361). "On one occasion," he says, "I saw the inauguration of a large trough for preparing and pounding food; the ceremony taking place in the chief canoe house of the town (Sisieta). I was assigned a seat next to Ingova (one of the two chiefs of Sisieta), while above my head were eight head slately taken in a head-hunting expedition. The trough was about 30 feet long and carved to represent a crocodile; twenty-two men were seated on each side of the trough, and an old man at either end. They had all their ornaments on and wore their shields over their shoulders, while their spears and tomahawks were close behind them. The food, consisting of taro, yams, and nuts, was placed in the trough, and the men sat ready. An old man in full fighting rig was then seen advancing towards the house. Walking up to the entrance he suddenly started back and raised his spear, exclaiming, Basioto (a crocodile) and standing on the defensive. Ingova then advanced from the interior of the house, and placing one hand on the crocodile's head, began a speech which lasted about ten minutes. At a given signal the men began pounding the food, all of them keeping excellent time. When they got tired or hot they were relieved by others, and the pounding was continued for over half an hour. I was then asked to go, and not wishing to offend them I did so."

Can the reason why the chief requested Mr. Woodford to retire be in any way connected with the eight heads hanging over his seat? and does this in any way explain the four flat projections at the head of the trough? These are so placed that a head resting on them would face down the trough. That this feast, besides being one of inauguration, was connected with their head-hunting expeditions I feel certain, from the fact that the men had their weapons with them. It is to be regretted that Mr. Woodford did not give us the gist of the chief's speech, so as to have thrown some light upon the ceremony that was to have taken place after he was requested to retire. From the fact that he was not only the first but the only traveller to give us a description of this particular form of food dish, it may be inferred that it is peculiar to Rubiana Island. It is fortunate, however, that he is still acting as British Commissioner in this part of the world, and he will, no doubt, in the not distant future give us a fuller account of these ceremonies. We already owe him much, not only for the information that he has collected, but for the very material additions that he has made to our national collection, reports of which have appeared from time to time in these pages.

J. EDGE-PARTINGTON.

[Since the above was written the following particulars have been obtained from Admiral Davis, the collector:—"Kiki dish, taken from the headquarters of the Rubiana head hunters in the Rubiana Lagoon, Solomon Islands, when their villages were destroyed by H.M.S. *Royalist* in September 1891. After a raid on neighbouring villages the captives were cooked and eaten from this bowl by the captors."]

Caphtor.

Hall.

Caphtor and Casluhim. By H. R. Hall, M.A.


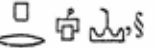
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I hasten to express my regret that in my paper on "Keftiu and the Peoples of the Sea," published in the *Annual of the British School at Athens*, vol. viii., I inadvertently omitted to note Professor Sayce's identification of the *Keptar* of the Ptolemaic name list at Kom Ombo with Caphtor, and so erroneously stated (p. 182, n.) that Dr. W. M. Müller was the first to make this identification. Professor Sayce has a priority of several years in the matter.

Professor Sayce writes (MAN, 1903. 77):—"In pointing out the equivalence of the hieroglyphic Kaptar and the biblical Caphtor I noted another fact which shows that Kaptar is not a transcription of Caphtor as might have been supposed if it stood alone. Besides Kaptar we find at Kom Ombo the name of Kasluhet, the Casluhim of Genesis, where the difference in the termination excludes the idea of mere transcription."




The name which Professor Sayce reads *Kasluhet* may quite possibly not be a simple transcription of *Casluhim*, but I do not see how this proves that *Keptar* is not a mere Ptolemaic transcription of *Caphtor*, and am compelled to differ from Professor Sayce and to agree with Dr. Müller on this point.

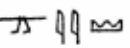
It was a well-known custom of the ancient Theban Pharaohs to record the names of conquered peoples in long rows on the walls of temples, each name in a "battlemented cartouche" (originally denoting the name of a fortress), with the figure of a bound prisoner behind it. This custom was imitated by the Ptolemies, whose Egyptian servants strove in every way to revive the magnificent memories of the "New Empire" of the Thothmes and the Rameses, in reaction against the archaizing tendencies of the Saïtes, who had looked to the simpler times of the Old Kingdom for their artistic inspiration. The Ptolemaic lists of this kind are mere conventional imitations: they are more than usually haphazard in arrangement, and the names contained in them are either copies of the old names of the eighteenth and nineteenth dynasties, usually ignorantly garbled, or are modern names, known to the Egyptians only since the Saïte period. Examples of the first category at Kom Ombo are "*Khetata*" (the old *p-ta n-Kheta*, "the land of Kheta": the Ptolemaic scribe obviously did not in the

least know what the name meant, and read it "*Khetata*"), "*Keshkhas*" , an ignorant garbling of the old *Kesh khasi*, "vile Kush," etc. The name of the city of Kadesh, which figured in the wars of Rameses II., is given twice as tributary to the Ptolemies, and wrongly in both cases, as "*Kedtiesh*" and as "*Betiesh*." The name of the land of Alashiya (Cyprus?), copied from a list of Thothmes III.'s time,* has a negro at its back, and so has the name *Bar-bar*, which Professor Sayce (*Higher Criticism and the Monuments*, p. 173, note) identifies with Babel.† Among the modern names are *Hinto*‡ (Hind, India) and *P^er^es* or *P^ars^a*, ,§ derived from a Persian source, and *Sushe* (Susa), which must be a mere transcription of the Greek *Σούσα*, otherwise the name must have appeared as *Shushen* (Shushan)||. These modern Ptolemaic additions make confusion worse confounded, and a most careful critical examination, distinguishing the modern names from the garbled ancient, and tracing the real original forms of the latter, is necessary before so late a list as that of Kom Ombo can be utilised by the historian of early Palestine.

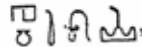

Now we evidently have the ancient equivalent of the biblical Caphtor in the well-known *Keftiu* (Crete) of the eighteenth dynasty. But that the name *Keptar*  also represents *Caphtor* there is no reason to doubt. But it occurs only at Ptolemaic Kom Ombo, not in any of the ancient lists. On this account Müller has regarded *Keptar* as a name of modern date; he assigns it (*Mitth. Vorderasiat. Ges.*, 1900, p. 6) to the fifth or sixth century B.C. It may then very well be a mere transcription of the Hebrew word. And this seems the more probable from the fact that in this inscription we find, in this very case, a regular Ptolemaic doubling, the ancient name misspelt and no doubt misunderstood, as well as the modern one; *Keftiu*, misspelt in the usual Ptolemaic way as , as well as *Keptar*. *Keftiu* is the real ancient equivalent of *Caphtor*, *Keptar* a Ptolemaic transcription from the Hebrew.



But Professor Sayce considers that he has also found at Kom Ombo a name "*Kasluhet*," the "*Casluhim* of Genesis, where the difference in the termination excludes "the idea of mere transcription," and that this "shows that Kaptar is not a transcription of Caphtor, as might have been supposed if it stood alone."

The name which Professor Sayce reads "*Kasluhet*" and identifies with "*Casluhim*" is  which one would ordinarily read *Kes-re-ub* or *K^es^erⁱb*. However, the heart-sign  has also the value *hati*, Coptic *ⲭⲏⲧ*, and if we choose in this case to regard the writers of the inscription as having intended *het* and not *ub* to be read for 

* As  *A's^ey^a*, the form of Thothmes III.'s time, earlier than *Alas^ya* (note §, below); see *Ann. Brit. Sch. Ath.*, viii., p. 169. The name can only have been known to Ptolemaic archaeologists like that of *Yantinaï*, which they garbled as "*Nebinaïti*" (*ibid.*, p. 167). The Ptolemaic Egyptians called Cyprus *Salmina* or *Kufrus*, mere transcriptions from the Greek.



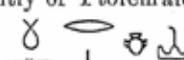
† If this identification is correct, the mis-spelling is due to Ptolemaic garbling, but why should not *Barbar* represent a negroid tribe of *Barabra*?

‡ , Müller, *loc. cit.*, p. 6. The sign  was pronounced *o* in Ptolemaic times.

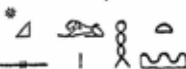
§ That the sign  *sa* was anciently vocalized *s^ya* is shown by the fact that the Egyptians also represented the name of *Alashiya* as  *Alas^ya*. But in Ptolemaic times it also represented simply *sa* and even simply final *s*.

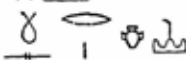
|| The form *Shushi* occurs in Assyrian, but the Susian and ordinary Assyrian form is *Shushân*, *Shushân*.

here, we have a name *Kes-r-het*, which is like *Casluhim* if we regard the final *t* as a feminine termination corresponding to the plural ending in the Hebrew, and assume that the scribe has incorrectly written a name *Kasluh-et* (*Casluh-im*) as *Kaslu-het*. Now, this kind of spelling betrays the date of the name at once. Under the New Empire foreign names were spelt out alphabetically, and the name *Casluhim* would then have been transcribed (supposing the Semitic plural ending to be replaced by an Egyptian *t*) as

*  *Kasluh-t*, not as , which is evidently of Ptolemaic date. If we assume, then, that Professor Sayce is right in believing the 

of Kom Ombo to be *Casluhim*, it looks as if this, no less than *Keptar*, were a mere Ptolemaic transcription of the Hebrew, with the alteration of the final syllable. But the fact of this alteration may fairly enough be taken to show, as Professor Sayce argues, that it is in reality *not* a mere transcription; if so, it may be an old name; and if so, it must be, as it stands, a garbled and ignorant edition of an original

* , or similar form.

The  of Kom Ombo may then be a Ptolemaic corruption of an ancient Egyptian equivalent of *Casluhim*, though the probability must not be left out of account that it may equally well have nothing to do with *Casluhim*, and be merely some land-name, *Kesrab* or *Keserib*, which we do not know. But it is difficult to see how, even if the first supposition be correct, it proves that the *Keptar* of Kom Ombo is not a mere Ptolemaic transcription of the Hebrew *Caphtor*, just as *Sushe* is of the Greek *Σούσα*. *Keftiu* is the old Egyptian name of *Caphtor* (Crete), *Keptar* a Ptolemaic doublet of it, taken over when the original meaning of *Keftiu* had been forgotten, and the name had been erroneously applied to Phœnicia (see *Ann. Brit. Sch. Ath.*, viii., p. 163). H. R. HALL.

Africa, West: Archæology.

Todd.

Note on Stone Circles in Gambia. *Being Extracts from a Letter from J. L. Todd, Liverpool School of Tropical Medicine. Communicated by C. H. Read, F.S.A.*

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We know altogether of four localities in which perfect stone circles occur in the



FIG. 1.—VIEW OF INNER CIRCLE FROM S.E.: LAMIN KOTO.

slope of a small hill, about half way towards the top.

Gambia. In isolated instances in the bush, on both sides of the river, we have seen single stones similar in every way to those composing the circles. In two instances careful search revealed no stones accompanying these monoliths—on the surface, at least.

The first circle which we saw was at Kununko, a small village on the south bank of the Gambia, almost opposite to the town of Sukuta. This circle is about four miles from the river. It is situated on the eastern

circle are about half the size of those forming the circle near Manna. It contains, I think, 13 stones (notes have been mislaid, and the photograph was not a success). At the western side two stones were further apart than elsewhere, so as to form some sort of an "entrance." The width of this circle was about 12 feet 6 inches (paced).

At Niamimaru there are, so I have been told, four or five stone circles composed of stones much larger than even those at Manna. It was one of these which Mr. Ozane investigated. The circle at Manna is situated on the northern bank, about a mile from the river, and is on rising ground.

At Maka—called by the French Makacolibantan—the chief town of the Cercle de Niani-Ouli, there are two quite complete circles placed side by side, and, approximately to the east, there are some evidences of there being a much larger outer segment of a circle, indicated by taller columns, as at Manna, which springs from the small central circles, and so forms, as it were, a court or approach, in the manner indicated by the accompanying little plan. The stones composing these circles are about as large as those at Kununko, which are about 2 feet 6 inches to 3 feet in height, and about 9 inches in diameter.

The stone of which all these circles are made is the ordinary red volcanic "ironstone," which is so common in Senegambia. At none of the places where we saw circles would it have been necessary for the builders of the circles to go more than a few hundred yards for their material.

That the stones of the inner circles are worked into an approximately D-shaped form is certain.

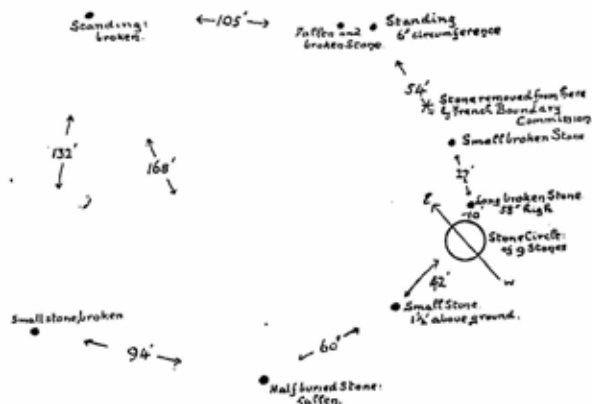


FIG. 3.—PLAN OF OUTER CIRCLE.

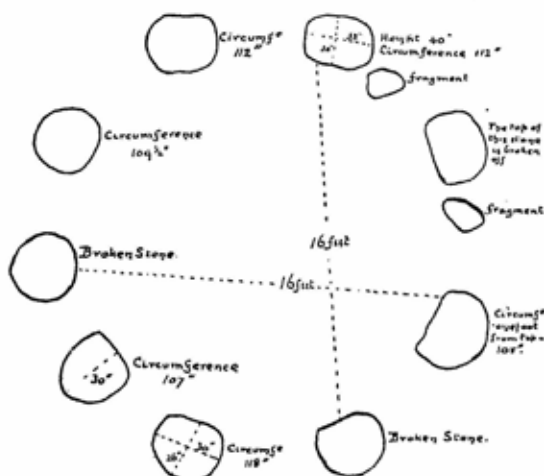


FIG. 2.—PLAN OF INNER CIRCLE.

The natives have absolutely no idea by whom or for what purpose these blocks of stone were arranged in this way. When questioned they say simply that the olden people did it. They do not look upon the circles with any particular awe, although they are sometimes used by the Mohammedan blacks as praying places. In spite of this they have not in many places any compunction in planting their crops near and around them.

A map of the "British Colony of the Gambia and adjoining Territory," published by Edward Stanford, has marked upon it Niamimaru and Sukuta (Kununko is situated approximately midway on a line drawn between these two points.) Manna is almost exactly in the same position as Lamin Koto. Maka is about 16 miles north-west from Walia, on the Kunchau creek.

J. L. TODD.

[Attention has already been called to the presence of stone circles in the Gambia by Captain J. W. Maxwell Carrol (vide *The Geographical Journal*, 1898, vol. xii., p. 522) who obtained a photograph of the smaller circle illustrated above, though from a different point of view. He states that "prayers are offered in their vicinity on feast days during " Ramadan by the Almarm or high priest, and it is believed that all prayers offered " up within the enclosure formed by the stones are granted." He also gives a diagram illustrating the position of priest and people on these occasions. Similar circles were noted at Palellan and Chamen; with regard to the last locality Captain Carrol remarks, "The pillars were arranged in pairs instead of singly, and their section was rectangular, " not circular; but the diameter of the circle and the height of the stones remained " constant."—ED.]

REVIEWS.

Formosa.

Davidson.

The Island of Formosa, Past and Present. By James W. Davidson, F.R.G.S., Consul of the United States for Formosa. London: Macmillan & Co. **94**
28 x 20 cm. Price 25s.

As the result of eight years personal research, the author has presented us with a handsome volume on this comparatively little-known island, and the varied interest which he has infused into his subject certainly seems to justify one of his opening remarks, that, "of all the dominions which, previous to the late Japanese War, " acknowledged the authority of China, no corresponding portion of area can be " compared with Formosa in interest and future importance; and this equally, whether " we consider the variety and richness of its soil, the stores of its mineral wealth, its " scenery (grand and picturesque), or the character of its aboriginal inhabitants—tribes " of savages as wild and untamed as can be found in all Asia, and sufficiently unknown " and unaccounted for to please the most enthusiastic ethnologist." The subject is treated throughout by the historic method of seeking to explain the present condition of the island by a reference to its past experiences, a method which, we think, is particularly necessary in dealing with a country which has been the scene of so many recurring invasions, and which has only in comparatively recent years emerged from its long period of strife, and begun to make definite progress under a settled form of government.

Beginning with the age of legends and the first-known visitors to the island, the author presents a history of the chief events up to the Japanese occupation in 1895, on which occasion he accompanied the Japanese Army as a war correspondent and began his task of collecting materials for his book.

The geographical position of Formosa, some 150 miles from the mainland of China and 600 from Japan, and its area—about half that of Scotland—account for the stormy character of its early history, and we learn, without surprise, that not only China and Japan, but also England, Portugal, Spain, France, and Holland, have all had a hand in shaping its destiny, though its two first-named neighbours have done the largest share. Chinese history of Formosa commences from 1430, when an officer of the Chinese court, in returning from Siam, was driven by a storm on to the island, and, on his return to China, reported his discovery, describing it as a magnificent land occupied by a strange and barbarous race. It was not till 1564, however, that China took any active interest in the new territory. From that time the history of the island becomes the history of the struggles of the different countries to retain it for themselves. The Dutch occupied it from 1614 to 1661, when the famous Koxinga defeated them, and set up an independent kingdom of his own, which lasted till 1683, when the "Beautiful Isle" became a Chinese possession. From here up to the Japanese expedition of 1874 the history of the Chinese occupation is varied by accounts of outrage and massacre, which are, in fact, continued until the occupation of the whole island by Japan in 1895.

Of this latter campaign the author gives a full and interesting account, based on his personal knowledge and experiences; and, with the Japanese occupation, the history of the island is brought down to the present day. Useful and interesting chapters on the most important industries follow, of which first in position comes tea, discovered in 1861 by the late Consul Robert Swinhoe, to whose memory and ability as a careful observer and naturalist the author pays a graceful tribute, saying that no other foreigner has during either the past or present succeeded in associating his name so firmly with Formosa. Camphor, the most interesting of Formosan products, and one closely connected with the "savage" question, is fully dealt with, and, in turn, sugar, gold, coal, petroleum, sulphur, salt, and economical plants claim the author's attention.

But, no doubt, the most interesting portion of the book, from our point of view as anthropologists, is that in which the inhabitants of Formosa come under review. Mr. Davidson divides the inhabitants into three ethnological divisions—the savage population, the Chinese population, and the Japanese population. Of these, by far the most interesting is the first division, the savage tribes, who, prior to the arrival of the Dutch and Chinese, were spread over the whole island, and were in far more prosperous circumstances than now. These tribes are divided into eight groups, of each of which the author gives details of their dwellings, dress, ornaments, tattooing, food, marriage, disease, burial, religion, &c., mostly from information supplied by Mr. Y. Ino, who has devoted several years to a close study of them, and has thus enabled the first account of them to be presented to English readers.

The savage inhabitants are computed to number 113,539, and to occupy about 7,500 square miles, half the area of the island. Most of the groups have retreated into their present mountainous abodes before the Chinese, and, though suffering sadly in numbers and material condition, have, to a great extent, kept up their own habits and customs. Three of the tribes, however, whom the Japanese call the "domesticated savages," have remained in the plains, attempting to compete with the Chinese, and, though partly incorporated with them, and adopting Chinese dress and language, are in a poor and miserable condition.

The *Atayal* group of savages, living in the mountains of the north, offer many interesting features. The East Atayals construct their houses as follows: "They dig a cellar-like excavation some 3 to 6 feet deep, and with the earth thus obtained a wall is built around the mouth of the excavation, and the interior is paved with stone. Strong wooden pillars with cross poles are erected, and flat pieces of stone are used as roofing. These houses are unnoticable at any distance, projecting as they do only some 4 feet above the surrounding ground." They practise tattooing, both sexes using special markings on attaining maturity. They remove the lateral incisor teeth from the upper jaw to improve their appearance. They are active and aggressive head-hunters, the practice appearing to enter into their religion.

Every young man, before he can be considered an adult, must have engaged successfully in a head-hunting expedition, and this is a necessary qualification before he can hope to obtain a wife. The heads obtained by each village are arranged on a narrow platform, and the average of each brave is reckoned at about ten heads. The Atayals worship their ancestors, the chief ceremonies taking place after harvest and at sowing-time.

The *Vonum* group inhabits chiefly the central mountains. They practise a sham marriage by capture, and, like the Atayals, root out the lateral incisors. They also take heads, but the practice does not enter so much into their life, but is regarded only as evidence of prowess. The *Tsou* group, near Mount Morrison, build houses like the Dyaks. Each tribe possesses a "bachelors' room" where the young unmarried men live together. They worship ancestors, and also reverence a species of orchid, which they say gave victory to their ancestors. Space forbids us giving further details; enough

has been said, however, to show that the book contains a useful contribution to the study of these almost unknown savages, who, while indulging in the horrible practice of head-hunting (a favourite pastime with many savage races) and sometimes even eating the flesh stripped from the heads, have many really good points. As Mr. Davidson points out, their strict observance of monogamy, the affection of parents for children, the deep sorrow shown at the death of a member of a family, and their respect for elders, give evidence of a social state far superior to that of other savage tribes of the Pacific, and can even teach us a lesson.

Some interesting details are given of the inhabitants of the small island of Botel Tobago, 35 miles south of Formosa, where the author landed in 1896 with an exploring party. Here were found a people who, while being no doubt of Malay origin, have received some outside influence, which, from the results seen in their methods of boat-building, fishing apparatus, and ornamentation with human figures, seems to be Papuan. Their dwellings are unique; each family has a large paved compound containing a half-buried house for winter, a comfortable dwelling for warmer weather, and a tower-like erection for use in the heat of summer.

A quantity of information is given on progressive Formosa of to-day, under Japanese administration, and among the appendices is one on the land-birds, and another on the mammalia of the island.

The book is furnished with a good map, compiled from the latest sources, and is illustrated throughout with appropriate photographs, including many of the savage tribes and their surroundings.

R. C. J. S.

Ethnography.

Musée du Congo.

Annales du Musée du Congo : Notes Analytiques sur les Collections Ethnographiques du Musée du Congo. Vol. I., Part I. Brussels : November, 1902.

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This very important memoir, which deals with the Musical Instruments of the Congo regions, will prove of very great value to students of primitive music. It is intended to be a *catalogue raisonné* of the fine collection of musical instruments in the Musée du Congo at Brussels (Tervueren), but it forms practically a monograph upon the subject, since comparatively few of the known types are missing from this comprehensive list. The instruments are divided primarily into four main groups, which are again subdivided into smaller groups: (1) Instruments à agitation (*e.g.*, rattles, bells, jingles, clappers); (2) Instruments à percussion (*e.g.*, hollow wooden gongs, metal gongs, drums, xylophones); (3) Instruments à vent (*e.g.*, trumpets, whistles, flutes); (4) Instruments à lamelles et à cordes (*e.g.*, *marimbas*, harp-guitars, mandolines, lyres, zithers). This classification is, from a morphological point of view, hardly satisfactory as it tends to separate sub-groups of instruments which are nearly related (*e.g.*, the bells and the hollow gongs), while groups having little or no kinship are brought together (*e.g.*, gongs and drums). The motives determining this grouping appear to be inadequate and rather unscientific. The individual sub-groups are very well dealt with, and the descriptions of the instruments are very careful and detailed; their structure, method of manufacture, and—in some cases—decorative treatment, being elaborately set forth and illustrated with excellent figures in the text. An attempt has been made to indicate which instruments may be regarded as primitive and which are derived forms, with a view to showing the manner in which the latter have been gradually evolved from the former. The natives still, fortunately, employ many of the very rude, early types, which have managed to survive even alongside of the instruments of higher type which are their improved descendants; and, by associating these into morphological groups, a good conception of the successive stages whereby the development has been effected may be arrived at.

Several native tunes are given illustrating the vocal and instrumental music, the general characters of which, as well as of the dances, are discussed at some length.

In the interesting and detailed description of the xylophones attention is justly drawn to the little membrane, made from the egg-cases of a spider, which is usually to be seen covering a small perforation in each of the gourd resonators, a refinement in sound modification which is very striking. The author is, however, wrong in believing that this curious feature has hitherto passed unnoticed. On the contrary, attention has frequently been called to it, and it has been much commented upon. The writer's statement, "aussi on peut dire que l'arc est le vrai prototype des instruments à cordes," requires to be received with caution. The assertion, while undoubtedly *partially* true, is far too sweeping, since a comparative study of stringed instruments, both of Africa and elsewhere, leaves little room for doubt that they have developed from a plurality of origins and not from one alone. The claim of the bow to be regarded as the ancestor of a very large and varied family of descendants remains unchallenged, but one must demur at its being promoted to the position of *fons et origo* of stringed instruments as a whole, though this appears to be a widely accepted doctrine. One may cavil at the use of the term, *mandoline*, to denote a group of instruments belonging most emphatically to the *harp* family. But these matters which call for friendly criticism detract but slightly from the general merit of this fine work, which forms a noteworthy addition to ethnographical and musical literature. The form in which the memoir is presented to the public does great credit to those responsible for its appearance. In the matter of the twenty-one plates illustrating the work, no skill or pains have been spared; they leave nothing to be desired. Some 336 instruments are figured therein, being reproduced from excellent photographs. The only noteworthy omission is that of a bibliography, which would have been of considerable use to students of musical instruments from these regions.

HENRY BALFOUR.

Craniology.

Frassetto.

Notes de Craniologie Comparée. Par Fabio Frassetto (de Turin). Extrait des Annales des Sciences Naturelles. Paris: Masson & Cie. (No date.)

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Dr. Frassetto's treatise deals with cranial variations as manifested in the mammalian class: the work is divided into four chapters, which deal successively with (a) supernumerary sutures of certain bones, (b) secondary fontanelles, (c) ossicles in sutures, and (d) miscellaneous examples. The paper may be considered from two points of view, viz., that of a catalogue of anatomical conformations, and (secondly) as the vehicle of the writer's views, already expressed some years ago, on the mode of formation and the morphology of cranial bones, of fontanelles and of the ossicles which occur either in sutures or in fontanelles. Regarded from the former point of view, the work, though admittedly an instalment, must be regarded as a most valuable contribution to anatomical literature, both from the interest of the descriptions and also on account of the saving to time and labour in searching for records, which will be effected by reference to its pages. It may be repeated that not only are the mammals of the order Primates brought under consideration, but that data are published dealing with cranial variation in most of the other mammalian orders. In this connection it is convenient to remark that while the illustrations, taken as a whole, are satisfactory in their clearness and simplicity, yet there are a few exceptions, such as Fig. 30, and in several instances the letters of reference lack clearness in consequence of having been inserted in cursive handwriting in the diagram. Useful tables of results are given on pp. 174-5 and 296-7.

Beyond its interest and value as a collection of records, this volume is of prime importance from the further point of view of containing much of the evidence upon which the author has based his view of the morphology of the bones of the cranial vault, of the fontanelles, and of the various ossicles, such as the Wormian bones found in connection with the foregoing. A review of the comparative anatomy, of the variations, and of the development of the cranial bones leads Frassetto to the conclusion (i.) that the

centres of ossification are for the several bones numerically greater than has been taught in human anatomy. Frassetto's views on this subject are clearly set forth in the pages 246 *et seq.*, and embodied in the diagrams (Figs. 20 and 21) on pp. 248 and 249. From this it follows (ii.) that fontanelles of two kinds may be distinguished, viz., (a) fontanelles occupying positions at the angles of complete bones, and (b) fontanelles in the interstices of components of what will subsequently be described as a single bone. Of these fontanelles, members of class (a) are described as primary, and are distinguished from the secondary fontanelles of class (b). Furthermore, Frassetto distinguishes two types of fontanelle differing with the number of bony elements (three or four) by which they are bounded. With three bony elements but one form of fontanelle is possible, but where four bones come together no less than four different conformations may be met with. From these considerations it follows that the number of different fontanelles which might be met with in human anatomy is no less than sixty-five.

In turning to the ossicles, it is first proposed to distinguish fontanelle-ossicles from such as merely occupy a position in a suture which does not represent a fontanelle. And, in consideration of the large additional number of fontanelles recognised by the author, it follows that a number of ossicles, formerly classified as simply sutural, must be transferred to the class of fontanelle-ossicles. In the third division of the paper records of such ossicles are given.

In reviewing the foregoing aspect of Dr. Frassetto's work, one criticism at least suggests itself strongly, so much so that it is believed that till its requirements are satisfied only provisional assent can be given to the author's propositions. For if the number of centres of ossification for a given cranial bone, such as the parietal, is to be regarded as greater than has been taught, it would be well to adduce more plentiful embryological evidence showing the exact development of the centres of ossification in much earlier stages than are dealt with in this work, and a greater predominance of opinion among other observers than is at present on the side of Dr. Frassetto.

In respect of embryological investigation, and as far as the parietal bone, for example, is concerned, the material of early date would appear to be limited to two human foetuses (pp. 158 and 160) of six months, and four to six months respectively. And as regards the opinions of other observers, Dr. Frassetto admits that he and Dr. Maggi are opposed by Staurengi and Bianchi. In view of these facts a certain amount of caution is certainly advisable before the new views are unreservedly accepted.

In a final paragraph Dr. Frassetto makes the interesting observation that the variations of the human skull being on the whole less wide than those of the other primates, the conclusion is that the latter represent a variable stock, whence the former have emerged along a path leading towards fixity in structure. Limits of space prevent an examination of this proposition, which is but one of many suggested by this valuable piece of work. The continuation of the publication will be awaited with interest.

W. L. H. DUCKWORTH.

PROCEEDINGS OF SOCIETIES.

Proceedings.

British Association.

Anthropology at the British Association, Southport Meeting, September 9 to 16, 1903 (continued from MAN, 1903. 90).

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The destination of the full text of each paper, so far as it is determined as yet, is indicated in square brackets.

ARCHÆOLOGY.

EUROPE.

NELSON ANNANDALE, B.A.—*The Survival of Primitive Implements in the Faroes and Iceland.* [*Journ. Anthr. Inst.*]

DAVID MACRITCHIE.—*Mongoloid Europeans*. Professor Boyd Dawkins has concluded that the Cave-men of Europe are represented by the Eskimos of the present day. Dr. Beddoe thinks that "some reason can be shown for suspecting the existence of traces of some Mongoloid race in the modern population of Wales and the west of England."

Professor Boyd Dawkins also points out that north-eastern Siberia yet retains an Eskimo population—the Chukchis. Martinière, however, reports in the Yalmal peninsula, in 1653, Eskimos in physical appearance who used the *kayak*. These skin canoes are said to have been used in the Orkney Islands by a race of occasional visitors, locally called "Finnmen," between the years 1682 and 1701. Popular tradition in Orkney and Shetland contains many references to these "Finnmen" or "Finns," who are said to have frequently intermarried with the islanders. Such a fusion would readily explain the Mongoloid features seen in certain Shetlanders by Dr. Beddoe.

The territory occupied by the Lapps in the ninth century included the greater part of Scandinavia, but von Düben states that the mountain Lapps assert that the forefathers of the modern Lapps, who came from the south-east of Europe, crossed the sound which separates Denmark from Sweden in small skin boats.

It is therefore reasonable to suppose that the remnants of the Lapps would continue to use the skin canoes of their race. This would account for the existence of coast-dwelling Lapps who crossed from Scandinavia to Orkney and Shetland in their *kayaks* as recently as the seventeenth century.

AMERICA.

DR. T. W. GANN.—*The Ancient Monuments of Northern Honduras and the adjacent parts of Yucatan and Guatemala, with some Account of the Former Civilisation of these Regions and the Characteristics of the Races now inhabiting them*. The author described, under the head of *The Ancient Monuments of Honduras*, the temples, mounds, buildings, and pyramids which occur singly and in groups; fortifications and the ovoid underground chambers which are found in the district. He also described the weapons and tools, noting the unaccountable absence of metals, the spear and arrow heads, celts, knives, even grinders, loom weights, net-sinkers, hammer-stones, scrapers, and henequen-cleaners, being all made of stone. He also dealt with the ornamental and ceremonial objects, pottery, burial by cremation, burial in cysts and oval chambers, and earth burial. The writing and pictographic records are similar to those found at Palenque, Quirigua, Chichen-Itza, &c. The Toltec pantheon was described and the probable introduction of human sacrifice discussed. [*Journ. Anthr. Inst.*]

The Present Inhabitants of Honduras.—*Language*.—Maya is practically universal except among the Caribs and a few isolated individuals recently discovered. The native arts are spinning, weaving, pottery manufacture, black wax candles and ornaments, flint chipping, milpa-making, preparing corn, henequen. [*Rep. Smithson. Inst.*]

ETHNOLOGY.

GENERAL.

PROFESSOR W. RIDGEWAY.—*The Origin of Jewellery*. Personal ornaments in civilised countries consist of precious metals, stones, or imitations of stones, pearls (which are the product of shells), or shells themselves, amber, jet, and occasionally various other objects, such as tigers' claws, etc. It has hitherto been held that men and women were led by purely æsthetic considerations to adorn themselves with such objects; but a little research into the history of such ornaments leads to a very different conclusion. The fact is, that mankind was led to wear such objects by magic rather than by æsthetic considerations. The jewellery of primitive peoples consists of small stones with natural perforations, e.g., silicified sponges or joints of coniferæ, or of sub-

stances easily perforated, such as amber, the seeds of plants, shells, the teeth and claws of animals, bones, or pieces of bone, pieces of wood of popular kinds. Later on they learn to bore hard stones, such as rock crystal, hematite, agate, garnet, etc., and obtain the metals.

All peoples value for magical purposes small stones of peculiar form or colour long before they can wear them as ornaments, *e.g.*, Australians and tribes of New Guinea use crystals for rain-making, although they cannot bore them, and crystal is a powerful amulet in Uganda fastened into leather. Sorcerers in Africa carry a small bag of pebbles as an important part of their equipment. So was it in Greece. The crystal was used to light sacrificial fire, and was so employed in the Church down to the fifteenth century. The Egyptians under the twelfth dynasty used it largely, piercing it along its axes after rubbing off the pyramidal points of the crystal, sometimes leaving the natural six sides, or else grinding it into a complete cylinder. From this bead came the artificial cylindrical beads made later by the Egyptian, from which modern cylindrical glass beads are descended.

The beryl, a natural hexagonal prism, lent itself still more readily to the same form, *e.g.*, the cylindrical beryl beads found in Rhodian tombs. The Babylonian cylinders, found, without any engraving on them, on the wrists of the dead in early Babylonian graves, had a similar origin. It has been universally held that Babylonian cylinders, Egyptian scarabs, and Mycenaean gems were primarily signets, but as the cylinders are found unengraved, and as many as 500 scarabs are found on one mummy, and as Mycenaean stones are often found without any engraving, it is clear that the primary use was not as signets but as amulets. The *Orphic Lithica* gives a clear account of the special virtue of each stone, and it is plain that they acted chiefly by sympathetic magic, *e.g.*, green jasper and tree agates make the vegetation grow, etc. The Greeks and Asiatics used stones primarily as amulets, *e.g.*, Mithridates had a whole cabinet of gems as antidotes to poison. To enhance the natural power of the stone a device was cut on it, *e.g.*, the Abraxas cut on a green jasper, the special amulet of the Gnostics. The use of the stone for sealing was simply secondary, and may have arisen first for sacred purposes.* Shells are worn as amulets by modern savages, *e.g.*, cowries in Africa, where these or some other kind of shells were worn in Strabo's time to keep off the evil eye.

Red coral was a potent amulet worn by travellers by sea, as at the present day in Mediterranean lands, and if pounded up it kept red rust from corn. Pearls are a potent medicine in modern China. Seeds of plants are medicine everywhere; for example, the ratti (*Abrus precatoria*) is used in India for rosaries, and also in Africa; the seed of wild banana is especially valued in Uganda, etc. The claws of lions are worn as amulets all through Africa, and are "great medicine," and imitations of them are made. So with teeth of jackals, which are imitated in wood if the real ones are not to be had, and boars' tusks in New Guinea. When gold first becomes known it is regarded exactly like the stones mentioned. Thus the Debe, an Arab tribe, who did not work gold, but had abundance in their land, used only the nuggets, stringing them for necklaces alternately with perforated stones.† Magnetic iron and hematite were specially prized, the power of attraction in magnetic iron, as in the case of amber, causing a belief that there was a living spirit within. Hence, iron in general was regarded with peculiar veneration, and not because it was newer metal, as is commonly stated.

It is thus clear that the use of all the objects still employed in modern jewellery has primarily arisen from the magical powers attributed to them, by which they were thought to protect the wearer. [*Journ. Anthr. Inst.*]

* Cf. Herod., ii. 38.

† Strabo, p. 778.

EDWARD LOVETT.—*Some Suggestions as to the Origin of the Brooch, and the probable Use of certain Rings at present called "Armlets."* The author suggested, as the prototype of the ring-and-pin contrivance for fastening a cloak, the use, by a hunting people, of the mammalian *Os innominatum* and *Os calcis*, the corners of the cloak being drawn through the oval perforation of the former and then pierced by the sharp point of the latter.

Many rings of early date and various materials—bone, jet, shell, bronze, and iron—which are usually described as "armlets" are of too small diameter to allow the entrance even of an infant's hand. As such rings are frequently found associated with pins of similar materials, commonly regarded as "hair pins," and as ring and pin are sometimes found *in situ* on the breast of a skeleton, it is inferred that they represent a simple ring-and-pin fastening of the kind described above.

The next step of development is taken when the pin is perforated at the thick end and attached to the ring by a fibre to prevent it from being lost. This stage is actually represented by a ring-and-pin fastening which is in common use in China; the ring is of agate, and the pin, which is of silver, is attached to it by a silken thread. Probably many of the perforated pins in our museums were similarly attached to rings.

An apron-fastener of the simple ring-and pin type, composed of an iron ring and a horse-shoe nail, is still worn in some of the blacksmiths' shops in Scotland; a similar simple brooch is still worn by the shepherds of Perthshire and by the tinkers in this and other parts of Scotland; and another similar form was in very common use in Donegal as late as 1860.

A further step is taken when the pin itself is hinged upon the ring, for security, by bending its flattened head round the ring. This form is abundant in Celtic times.

The inconvenience which accompanies the use of the ring-and-pin brooch, that the fabric to be fastened must be drawn far through the ring before the pin can pierce it, was remedied, it is suggested, by leaving a gap in the ring; and from this results the "penannular" brooch with its many varieties.

ASIA.

The Psychology and Sociology of the Todas and other Tribes of Southern India, (Report of a Committee).—It is intended to publish shortly a full account of the ceremonies and of the general results of the investigation of the sociology and religion.

W. H. R. RIVERS, M.D.—*Toda Kinship and Marriage.* The kinship system and marriage institutions of the Todas were studied by means of the genealogical method.* The Todas preserve their pedigrees by oral transmission for several generations, but considerable difficulty was experienced in obtaining the record owing to the existence of a taboo on the names of dead relatives.

Finally, however, a fairly complete genealogical record of the whole community was obtained, going back for two or three generations, and this furnished the basis for the study of the social organisation.

The system of kinship is of the kind known as "classificatory," every male of an individual's clan being either his grandfather, father, brother, son, or grandson and every female his grandmother, mother, sister, daughter, or granddaughter. A special feature of the system is that the father-in-law receives the same name as the mother's brother, and the mother-in-law the same name as the father's sister. The orthodox Toda marriage is one between the children of brother and sister; a man marries normally the daughter of his maternal uncle or of his paternal aunt, and this custom, which is common in Southern India, has so influenced the system of kinship that both mother's brother

* *Journ. Anthr. Inst.*, XXXI, 1900, p. 74.

and wife's father receive the same name, even when the two relations are not united in the same person.

There are two distinct sets of kinship terms: one set used when speaking of a person, and the other used in direct address. The latter terms are more limited in number than the former, and are used in a more general way, and the names of this kind given by individuals to one another are determined largely by the respective generations and relative ages of the speakers.

Although the Toda system is definitely of the classificatory kind, the people often used terms which define more exactly the nature of the relationship; thus, a man might speak of his nephew as "my son," or as "my younger brother's son." This and other similar practices seem to show that the Toda system is losing its purely classificatory character, and is approaching the descriptive stage.

The Todas have very definite marriage regulations. The people are divided into two endogamous groups, each of which is subdivided into a number of exogamous groups which may be called "clans."

The two chief groups are not allowed to intermarry: a man must marry a woman of his own division. The clans into which the two chief divisions are subdivided take their names from certain important villages. The people of a clan are known as *madol* (village people), and a man is not allowed to marry one of his own *madol*.

Marriage is also regulated by kinship. A man may not marry the daughter of his father's brother. As there is paternal descent, she would be of his own clan. He is also prohibited from marrying the children of his mother's sisters, though they will usually not be members of his clan. There is thus a prohibition of marriages between the children of brothers on the one hand and between the children of sisters on the other hand. Between the children of brother and sister there is not only no such prohibition, but the orthodox marriage is of this kind. A man normally marries the daughter of his mother's brother or of his father's sister. Infant marriage is a well-established Toda custom, and children married to one another are very often cousins—the children of brother and sister. There is, however, a very general custom of transferring wives from one man to another (or from one set of men to another), and the unions which ensue are not necessarily examples of the marriage of cousins.

The Todas have long been noted as a polyandrous people, and the institution of polyandry is still in full working order among them. When a girl becomes the wife of a boy it is usually understood that she becomes also the wife of his brothers.

In nearly every case at the present time and in recent generations the husbands of a woman are own brothers. In a few cases though not brothers they are of the same clan. Very rarely do they belong to different clans.

One of the most interesting features of Toda polyandry is the method by which it is arranged who shall be regarded as the father of a child. For all social and legal purposes the father of a child is the man who performs a certain ceremony about the seventh month of pregnancy, in which an imitation bow and arrow is given to the woman.

When the husbands are own brothers the eldest brother usually gives the bow and arrow, and is the father of the child; though so long as the brothers live together the other brothers are also regarded as fathers.

It is in the cases in which the husbands are not own brothers that the ceremony often becomes of real social importance. In these cases it is arranged that one of the husbands shall give the bow and arrow, and this man is the father, not only of the child born shortly afterwards, but also of all succeeding children, till another husband performs the essential ceremony. Fatherhood is determined so absolutely by this ceremony that a man who has been dead for several years is regarded as the father of any children born by his widow if no other man has given the bow and arrow.

There is no doubt that in former times the polyandry of the Todas was associated with female infanticide, and it is probable that the latter custom still exists to some extent, though strenuously denied. There is reason to believe that women are now more plentiful than formerly, though they are still in a distinct minority. Any increase, however, in the number of women does not appear to have led to any great diminution of polyandrous marriages, but polandry is often combined with polygyny. Two or more brothers may have two or more wives in common. In such marriages, however, it seems to be a growing custom that one brother should give the bow and arrow to one wife, and another brother to another wife. It seems possible that the Todas are moving from polyandry towards monogamy through an intermediate stage of combined polyandry and polygyny.

W. H. R. RIVERS, M.D.—*The Toda Dairy*. The Todas of the Nilgiri Hills practise an elaborate religious ritual which is a development of the ordinary operations of the dairy. The dairy is the temple and the dairyman is the priest.

There are several kinds of dairy-temple, of different degrees of sanctity, corresponding to the different degrees of sanctity of the buffaloes tended at each. Of these dairies there are three chief grades. The highest kind is found in secluded spots far from any place where ordinary people live. These dairies belong to one of the two chief divisions of the Todas, the *Târthârol*, but are tended by men belonging to the other division, the *Teivaliol*. The lowest grade of dairy is found at the villages where the people live, and these dairies are tended by men of the same division as that to which the dairy belongs. The dairies of intermediate sanctity are found only at the villages of the *Târthârol*, but are tended by members either of the *Teivaliol* or of one special clan of the *Târthârol*.

It is only the milk of the different kinds of sacred buffalo which is churned in the dairy-temple. There are buffaloes which are not sacred, and their milk is churned in the front part of the huts in which the people live.

The more sacred the dairy, the more elaborate is its ritual. In every case the dairy vessels are divided into two groups. The more sacred vessels are those which come into contact with the buffaloes or the milk. The less sacred are those which receive the products of the churning. In the highest kind of dairy the products of the churning do not pass directly from the more sacred to the less sacred vessels, but have to pass from one to the other by the help of an intermediate vessel. The dairy ritual is accompanied by definite prayer; and the more sacred the dairy the more prominent a feature of the ritual does prayer become.

The more sacred the dairy, the more is the life of the dairyman hedged about with restrictions. There are definite ordination ceremonies for each grade of office. In the lowest grade they may be completed in less than an hour; in the highest they are prolonged over more than a week.

In addition to the three chief grades of dairy, there are certain dairies in which the ritual has developed in some special direction, and there are often considerable differences in the ritual of different dairies of the same kind, especially of the highest grade. Each clan has a special prayer for use in the dairies belonging to that clan, and each of the highest kinds of dairy has also its own special prayer.

Various features of the lives of the buffaloes are made the occasion of ceremonies, often elaborate and prolonged. Whenever the buffaloes go from one dairy to another to obtain fresh pasturage, the journey becomes an elaborate ceremony which may be prolonged over two or three days. Giving salt to the buffaloes is similarly accompanied by complicated ceremonies, and ceremonies are held fifteen days after the birth of a female calf.

One of the most interesting of the ceremonies of the dairy is connected with the custom of adding buttermilk from a previous churning to the newly drawn milk. By means of the

addition of buttermilk, which is called *pep*, a kind of continuity is kept up in the dairy operations; but under certain conditions this continuity is broken, and it becomes necessary to make new *pep*, and this may be the occasion of prolonged and elaborate ceremonies.

WILLIAM CROOKE, B.A.—*The Progress of Islām in India*. [*Journ. Anthr. Inst.*]

J. E. DUERDEN, Ph.D.—*A West Indian Aboriginal Wooden Image*. The example represented a single crouching human figure, terminated above by a large circular canopy and resting upon an irregular wooden base. The face was very large; the ears were indicated by an upper smaller and a lower larger lobe, both perforated. The eye and mouth apertures were formed in the usual rounded manner, with thickened margins. The arms and legs were constricted, as by the wearing of circular bands; small mammæ, ribs, and a large erect virile organ were indicated.

MISS PULLEN-BURRY.—*The Rapid Evolution of the Jamaica Black*. This paper dealt with the moulding of an African people by English and Scotch life and thought. The reasons for the rapid evolutionary development since the emancipation of the slaves in 1834-8 are (1) the security of a solid government, (2) widespread education afforded by 757 schools, (3) an active religious propaganda rapidly suppressing Obeism, (4) easy conditions of life, (5) state aided settlements of lands on deferred payments establishing a growing class of peasant proprietors.

Huxley Memorial Lecture.

Anthropological Institute.

The Fourth Annual Huxley Memorial Lecture of the Anthropological Institute was delivered in the Lecture Theatre of Burlington House on Friday, 16th October, 1903, at 8.30 p.m.; the President of the Institute, Mr. H. Balfour, M.A., in the Chair. 98

The lecturer was Professor Karl Pearson, F.R.S., of University College, London, who took as his subject, "On the Inheritance in Man of Mental and Moral Characters" and its comparison with the Inheritance of Physical Characters." The Lecture will be found in full, with tables and diagrams, in *Journ. Anthr. Inst.*, XXXIII., p. 179.

At the close of the lecture Mr. Francis Galton, D.C.L., F.R.S., proposed and Professor W. F. R. Weldon, F.R.S., seconded a vote of thanks to Professor Pearson for his lecture and the Huxley Memorial Medal of the Institute was duly presented.

Annual Meeting.

British School: Athens.

The Annual Meeting of the British School at Athens was held at the Society of Antiquaries, on Thursday, October 22nd, at 5 p.m., Professor Butcher in the Chair. The Report showed a year of increased usefulness and activity. Excavations had been in progress at Palæokastro in the east of Crete, and much new light had been thrown on the early civilisation of the Island. The balance sheet was satisfactory, but new subscribers were urgently needed. Sympathetic reference was made to the loss sustained by the School in the death of Mr. Penrose. In moving the adoption of the Report the Chairman briefly summarised the work of the School and pointed out the importance of minor excavations which often served as a link connecting more important discoveries. 99

Mr. J. L. Myres described, by means of lantern slides, the excavations at Palæokastro, drawing particular attention to the pottery, ornamented with marine designs in many cases, and to the discoveries of a Purple Fishery (certainly prior to the Phœnicians) at Kouphonisi, and of votive terra-cottas at Petsofà.

The officers and committee were then re-elected, and, after votes of thanks had been passed to the auditors, officers, and the retiring secretary, the proceedings terminated.



CARVED WOODEN DOOR FROM THE TOWN OF AKARRÉ
NORTHERN NIGERIA.

(Each panel measures approximately 262 × 104 cm.)

ORIGINAL ARTICLES.

Africa: Nigeria.

With Plate M.

Joyce.

Note on a Carved Door and Three Fetish Staves from Northern Nigeria. By T. A. Joyce, B.A.

100

The ethnographical department of the British Museum has recently acquired by purchase a fine specimen of native wood-carving from West Africa consisting of a wooden door in two panels each cut from solid hard red-wood, and ornamented on one face with transverse rows of figures of men and animals carved in relief. The two panels were originally fastened together by three long transverse bars across the back, kept in position by bolts, which passed through holes bored both in bars and panels, so that the latter formed a single door swinging on the two pivots projecting from the top and bottom of the left-hand panel. The marks of these bars are still visible upon the back of the panels. The edges where the two halves overlapped were bevelled off so that the join was not too noticeable. The whole of the design is very characteristic of the art of West Africa, and shows a considerable similarity to the castings from Benin. The first row shows the figures of two Europeans in pith helmets and their native servants armed with rifles. One of the Europeans carries a revolver and the other is smoking an enormous pipe. Immediately underneath, and separated by a raised band of triangular ornamentation, is a row of native women, one of whom carries a large bottle. Into this row and somewhat disturbing the symmetry is introduced the figure of a tortoise. Next a band of loop pattern followed by a row of birds recalling the vultures on the bronze rings figured by Ling Roth in *Great Benin*, p. 54. Beneath them is a band of ornamentation, probably derived from the preceding loop pattern, and under this is a row of horsemen, including a European with a large stick, and a native with an equally large pipe. Then follow in succession an ornamental band of lizards, a row of natives with guns, a band of concentric lozenges, and a row of native bowmen, headed by a man with a large knife driving a prisoner before him. The bows are very similar to the bows occasionally represented on the Benin plaques. Beneath a band of triangular ornamentation follows the last, and perhaps most interesting, row of figures. Here, surrounded by natives with guns is a quadruped of extraordinary appearance, with what appears to be a thick curved horn, divided at the tip into several short branches, issuing from the top of the head. The peculiarity about this horn, if horn it is, is that it curves forward instead of backwards; the animal appears to be eating something. Above its back is a monkey, also engaged in a meal, and another tortoise. Next a coiled snake, from the mouth of which projects the head of an antelope, which, contrary to all precedent, the reptile is

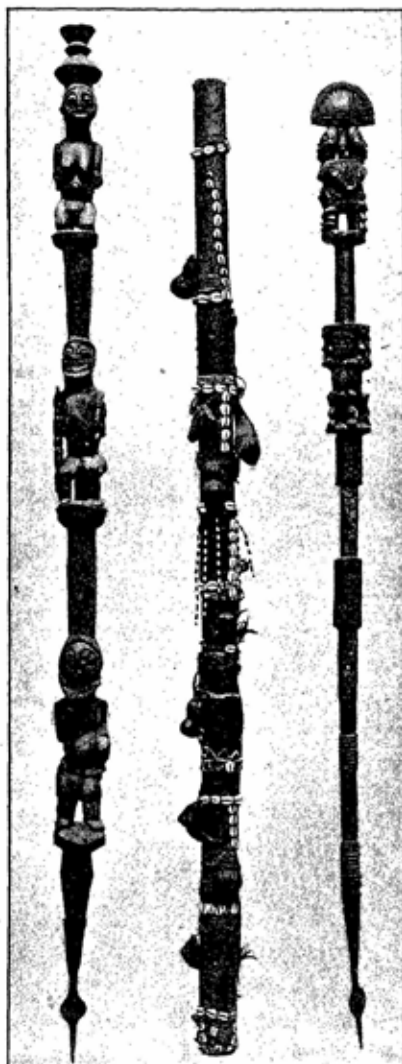


FIG. 1.—FETISH STAVES.

swallowing tail first. A native armed with a sword grasps the neck of the snake. Finally a colossal leopard is represented in the act of leaping on a totally inadequate gazelle. This door, which was the gate of the town of Akarré, as well as the objects described below, was collected by Mr. L. Kentish-Rankin, who has spent many years in the interior of Northern Nigeria. The carving is very well executed, and the door, though it must necessarily be of comparatively recent manufacture, is certainly a valuable addition to the national collection. It is a pity that so few efforts should be taken to preserve these rapidly-vanishing examples of native art. Mr. Kentish-Rankin told me that on one occasion he saw a similar door, smaller in size, but of equally good workmanship, doing duty as part of a hen-coop for some British officers in a native town.

Fig. 1 shows three fetish staves. The central staff was procured from an old fetish priest who, while admitting that much of his art was mere trickery, seemed to be convinced



FIG. 2.—CHIEF'S AXE.

that he really could produce lightning through its agency. The staff is hollow and contains seeds which trickle down through a cane framework when the staff is reversed, producing a hissing noise; the outer covering is made of cotton cloth covered with a black, resinous varnish, and is ornamented with beads, cowrie shells, and various pouches and receptacles containing "medicine."

Among the latter is a short horn, shown on the left-hand side in the photograph, in the broad end of which is fastened, by means of a string binding, a celt or portion of a celt.* This horn was held to the mouth, when curses were pronounced against an enemy, and imparted a peculiar efficacy to the imprecations. The two middle receptacles contain a powder which, if cast upon the floor of a hut, infected the inhabitants with small-pox, while part of the contents of the lowest pouch thrown upon the fire could not fail to produce rain. Omens were taken from the falling of the seeds which it contains; should they fall from one end of the staff to the other without a check good fortune was predicted, should the flow be interrupted the omen was unfavourable. The other two staves are from the Bunu tribe in the neighbourhood of Kabba and were used in connection with the old nature worship in which the powers of generation played a pre-eminent part. The staff on the right is entirely of wood fitted with an iron ferrule, that on the left is also of wood with a similar ferrule and is bound at intervals with

sheet iron and iron wire. They measure respectively 147.5 cm. and 140 cm. in length. The latter, both from the style of workmanship and general appearance, is considerably the older of the two, and bears abundant traces of the sacrificial blood poured over it to propitiate the powers of nature. Each of the two pairs of figures placed back to back consists of a male and a female. The figures on the other staff are arranged singly and consist of one female and two males. Mr. Kentish Rankin says that the most binding form of oath known to the natives was administered by making the individual sworn

* Cf. MAN, 1903, 102, "Thunderbolt" Celts from Benin, by Henry Balfour; and 103, On the Thunderstones of Nigeria, by Dr. P. M. Dwyer.

step over these staves. He also thinks that they were planted in the centre of the dance circle.

Fig. 2 represents a chief's axe with iron blade and haft of hard wood boldly carved to represent a woman, with tribal marks on each cheek, in a kneeling position. It measures 44 cm. in length.

T. A. JOYCE.

Marriage Prohibitions.

Lang.

The Origins of Marriage Prohibitions. *By Andrew Lang.*

101

Perhaps no review was ever more useful to an author than that of my *Social Origins*, in MAN, 1903. 70. The critic begins by pointing out an error in my terminology. That error once dissipated, I seem to see clearly into the problems which had hitherto baffled me, and to have a chance of answering the reviewer's questions.

My theory is that, for reasons given, marriage was originally prohibited within the local groups. Next sobriquets derived from names of animals were imposed on the groups by their neighbours, and came to be accepted. I called the groups at this stage "local totem groups," and the critic asks "how Mr. Lang can do so?" How, indeed! I used the phrase by prolepsis, for I have (as I expressly state) no certainty that the animals which lent names to the groups were, at this stage, totems, and had attracted myths, ritual, and taboos into their sphere. That they had not yet done so, as we shall see, precisely suits my system. Such exogamous local groups, then, I shall here call "local animal-named groups." I shall also note circumstances which may warrant a presumption that the eponymous animals were not yet the centres of myths, the recipients of respect, and the sanctioners of taboos; were not, in fact, at this moment in evolution, *totems*. But the presumption is far from being proof.

It will be shown that this view modifies my system. For example, I do not, and did not, think (the reviewer seems doubtful) that "the totem kins within the group practised exogamy," at this stage. The old rule, "no marriage within the local animal group" still prevailed. However, it happened (to that point I return), the groups were heterogeneous. There were Bats, Cats, Rats, Sprats, and so on, within the local group Emu. By the existing *totem* law, Rat might have married Cat, as of a different totem, but the local animal-named group law still dominated morals, and Rat and Cat were of the Emu local group, and not intermarriageable. Therefore, to secure peaceful betrothals, local group Emu made *connubium* with local group Kangaroo, and these two became *Yungaru* and *Wuttaru*, the Emu and Kangaroo phratries of a local tribe.

Now, manifestly, by the operation of exogamy, and the descent of the name in the female line, phratry Emu would probably contain the same names as phratry Kangaroo, each of these two local groups having raided their female mates from groups Rat, Bat, Cat, and Sprat. But, in fact (except among the Arunta and cognate tribes), the same totem name never now occurs among both phratries. "Why is this?" my critic asks. I was obliged to say that the arrangement was the result of deliberate enactment, because, even on Dr. Durkheim's system, it could not possibly come into existence by accident. Mr. J. G. Frazer also holds by conscious arraying of the totems into the two phratries, a process which, he says, was "natural." (*Journ. Anthr. Inst.*, XXIX., 284, 285.) The critic remarks, "we can see no motive" for the enactment that the same totem name and kin should never occur in both phratries. I now reply that, on my theory, there possibly *was* no motive, at first, though there may have been. Each phratry might then contain the same animal names, and it may have been enough to marry outside your phratry, outside of the old animal-named group. But suppose that the various eponymous animals within the group (except, perhaps, the original animal of each of the two local groups now phratries) later thrive to totem's estate. A taboo naturally arises against injuring or even using your totem, your revered ancestor, kinsman, or ancestral friend, or

any human being of his name or kin. By this stage the idea of kinship, at least through women, is not, I agree with Mr. Darwin, "too abstract." The totem taboo now extends to the prohibition "you may not marry a woman of your own totem." But that woman may be in the phratry linked with yours. By the older phratry law you may marry her; by the perhaps more recent totem taboo you may not. This condition of law was complex, puzzling, contradictory, and highly inconvenient. The remedy was to permit no totem name to appear in both phratries. Surely the motive was adequate.

The same motive, obviously, would have acted if, at the time when the phratry organisation arose, the eponymous animals were already full-blown totems, with taboos. But I now show grounds for the inference that this was not the case. We do not learn, as far as my knowledge goes, that the eponymous animals of the phratries are treated with any kind of semi-religious regard by the members of their phratries. A man of the Emu phratry (unless I am misinformed) may kill and eat an Emu, unless he be of the Emu totem. But the eponymous animal of the phratry, except in America, is seldom, if ever, also a totem. Possibly, then, when phratries arose out of local animal-named groups, these eponymous animals were not yet totems or sacred in any way, and probably they never became so. Many phratry names, moreover, are of unknown meaning. If, as it is agreed to be probable, the names were animal names, their sense is lost. This could hardly be the case if the eponymous animals of these phratries had once been sacrosanct, as totem animals are, for people would have been obliged to remember that the animals must be spared and could not safely forget their names.

"Why," my critic asks again, does there "exist a rule that the totem kin must seek mates outside the kin as well as outside the group" (now phratry). "Mr. Lang . . . gives no satisfactory account of how such a rule came into existence. The idea of kinship, which he suggests as a cause, seems too abstract for the primitive times with which we are dealing."

Like Mr. Darwin I cannot regard the idea of female kinship as "too abstract." But my reply, just given, to the question about the non-appearance of the same totem in both phratries contains my answer to this new query. The phratry prohibition is, I conceive, the survival of the old local sobriquet-group prohibition. The totem prohibition is an aspect of the perhaps later totem taboo, which extends to marriage within the totem name as well as to the prohibition against killing and eating the totem animal.

My critic finds fault with me for not showing in detail how—when the relations of animal-named groups and kins of men to their eponymous animals became matter of speculation, that is, of myth—the various practices and totem taboos arose. On that head I thought, and think, that no student acquainted with the working of the savage mind needs any instruction from me, though I am perfectly ready to be instructive, if that seem necessary.

Another question perhaps requires an answer. "Under what circumstances, may we ask, did the captured women begin to retain their old group names, and why did their names descend to their children? To this question Mr. Lang appears to have no answer." Appearances are deceitful. I have an answer, though, inevitably, it is but a conjecture. The captors knew the groups from which they had taken each woman. While the captive women, carried into the Emu group, were, by outsiders not of their original group, reckoned as Emus, in the Emu group their original group-name was known. By an outside group, if they were captured, their original group-name might be discovered. It is not beyond conjecture, is it, that the women even bore the tattoo-marks of their original groups? In these circumstances, then, "did the captured women . . . retain their old group-names," that is, within their new group. "And why did their names descend to their children?" Why, one replies, did names descend originally through the female, not the male line? That this was the case I agree with Mr. Taylor and, I think, with most anthropologists. If we are right, all theories

which derive totemism from the personal name, say Bear, or personal protective animal, of a male ancestor, must necessarily be wrong, and I cannot imagine how the theorists overlooked the warning of Mr. McLennan. As soon as descent begins to be reckoned, as soon as the totem name begins to pass, in the male line, the decadence of totemism commences. Totemism arose when the name was still taken from the mother. Can this be denied?

Why, to return to the reviewer's question, did the original animal group-names of captured women descend to their offspring within the group, say Emu, of the captors? My answer is that, like Mr. Darwin, I conceive the connection between mother and child to have been much more patent than that between father and child. The long period of nursing among savages, the early years in which the mother is far more closely associated than the father with the child, and the force of the maternal instinct, all stamp the child as specially the mother's. Thus the offspring of a Bat woman in the Emu local group might readily be distinguished as Bats. I conceive that other children, children of Rat and Cat women, would naturally speak of the Bat woman's children as "the little Bats." So manifest to me are the naturalness and probability of these processes that I did not think it necessary to dwell upon them. Heterogeneity within the local group undeniably did arise. Many totem names were in each group. I agree with what I take to be Mr. McLennan's opinion, that these names came in with the women captured from other local groups of animal sobriquets, the names descending to their children. There is nothing original in my opinion. Has the critic anything more plausible to suggest than the current theory? If things did not occur as in this theory, if captured wives did not retain their old group names and hand them on to their children, how did local groups become heterogeneous?

As to "non-totemistic peoples with tribal or other group names derived from animals," and as to their practices in regard to these animals, I am said not to have examined the matter. But what "non-totemistic peoples" with animal group or tribal names am I to examine? Where *gotras* and similar Chinese exogamous aggregates named after animals occur, I take the phenomenon to be a totemistic survival. The Snake Indians, again, are so named by Europeans merely from the Snake River. The English, Orcadian, and other European and Hebrew village groups with animal names I have examined in my book. I shall be happy to inspect the animal-named groups and tribes of other non-totemistic peoples when I know where to find them, but I should expect the names to be decayed vestiges of totemism, with, perhaps, but scanty relics of regard, or none, for the name-giving animal. We have no evidence for regard to the wood-pecker and little for regard to the wolf, among Picentes and Hirpi, but this does not prove a negative. In Egypt we know that the name-giving animals of the Nomes were religiously regarded. Where else am I to look?

As to my list of Sioux group sobriquets, a few of these, as the critic agrees with me (he seems to think that we disagree), "are the result, not the cause, of totemism." That is precisely what I explicitly state myself. Among many modern Sioux group-sobriquets of a different kind "Eat no geese" is one survival of totemism. Many Sioux group-names more recent—some local, some characteristic, some derisive—are adduced by me to illustrate the fact "that nicknames are given and adopted," as my theory is that the animal names of my hypothetical local sobriquet-groups were originally imposed from without. Among the Sioux a few sobriquets like "Eat no geese," survive from totemism.

As to the reason why the historic Highland clans should not reckon among "local totem groups," the answer is that in no respect do they resemble such groups, and, above all, they have no totems and no animal sobriquets. Is that enough?

I trust that if any reader of these pages has done me the honour of reading my book he will find the system here modified for the better as regards the exclusion of the

same totems from both phratries. I also propose the substitution of "animal-named local groups" for "totem local groups." In any case, whether my theories fail or not it is better to attempt something constructive than to throw up the problems as insoluble.

ANDREW LANG.

Africa, West.

Balfour.

"Thunderbolt" Celts from Benin. By Henry Balfour, M.A., President of the Anthropological Institute. 102

In 1901 I was fortunate enough to purchase, from among a number of bronzes and other specimens from the city of Benin, an object which is, I think, of much interest, and which is, as far as I am aware, unique, as I have hitherto seen no reference to similar objects in any of the numerous works in which are described the justly celebrated "finds" from this interesting locality. This specimen (Fig. 1) consists of a small ground stone celt, about $1\frac{1}{2}$ inches long, more or less almond-shaped, but with straight, blunt edge. The upper portion of the celt is encased in an open-work socket of bronze, probably cast by the *cera perdata* process, and consisting of a band encircling the celt transversely, and another passing longitudinally round the lateral edges and apex of the celt, and united with the transverse band at either end. This lateral band carries a



FIG. 2.

FIG. 1.

FIG. 3.

pair of bronze rings or staples on each side (one broken away). The spaces between the bands on either face are filled in with an open-work covering of bars crossing one another diagonally and forming a kind of basket-work over the celt. An important feature is the thick coating of dried blood which forms a deposit over the whole, so thickly that the interstices of the open-work are quite clogged with it.

It seems evident that this was an object of a sacred character, over which libations of blood, not necessarily human, have been poured, and it is fair to conjecture that the stone axe was primarily regarded as a "thunderbolt," and, as such, was kept in a *juju* house or shrine as emblematic of the local thunder god. The belief in the *keraunic* origin of stone implements is, as is well known, extremely prevalent among peoples who have completely emerged from their stone-age, and is of very wide geographical distribu-

tion. Stone celts and arrow-heads are regarded as "thunderbolts" and "lightning-stones" almost everywhere where their true nature is forgotten. Western Africa is no exception to this general rule. Sir R. Burton, the Rev. T. J. Bowen, Major A. B. Ellis, and others, all refer to this belief in this region. Burton and Winwood Reade have told us that on the Gold Coast stone axes were called "thunderstones" (*sráman-bo*) and "god-axes," and were carefully preserved for their supposed medicinal virtues. A specimen was found by Mr. Kühne on an altar or shrine at Ashanti. In that region, too, they were called "god-axes," and were regarded with superstitious reverence. On the Slave Coast, according to Ellis, stone axes are called *so-kpe* ("fire-stones") by the Ewe-speaking peoples, and are believed to be thunderbolts associated with Khebioso, the lightning god. The same writer tells us that Shango, the god of thunder and lightning of the Yoruba-speaking population of the Slave Coast, has the epithet of *Jakuta* (i.e., "hurler of stones"), and that stone implements are regarded as his thunderbolts. The superstitious reverence with which stone axes were regarded in Benin itself is abundantly manifest from the frequent representations of these objects upon the elaborate bronze castings, especially upon some of the larger human heads and the state maces. Upon the latter the surmounting human figure is frequently represented as holding a neolithic axe blade in the left hand. By analogy we may assume that in Benin the stone axes were "thunderbolts," and became objects of veneration as symbols of the thunder-god; the blood libations being, presumably, of the nature of propitiatory offerings. This small celt with its mounting of bronze curiously recalls to mind a jade celt found at Tonneins (Lot-et-Garonne) described in the *Bull. Archéol. du Tarn-et-Garonne* (1872, p. 9). This is about the same size as the Benin example, and the bronze mounting similarly encloses the upper portion of the celt, though it differs in character from the West African mounting, as might be expected. I have seen one other Benin mounting for a celt, though from this the celt itself was missing.

Together with the stone celt, I have thought it worth while to figure two little bronze models of celts from Benin (Figs. 2 and 3). These were part of a number of similar celt-models which were found associated together, and were said to have formed a necklet. Each is a perfect miniature representation in metal of a stone axe of a form very similar to that of the actual stone celt which I have described. They are engraved somewhat deeply on both faces and edges; the zig-zag lines which cross one another, and form in one specimen an angular figure-of-8 on each face, may perhaps be symbolical of lightning, and so have served further to connect these model *heraunia* with the god of lightning. They are perforated for stringing, and weigh rather over half-an-ounce apiece. The "thunderbolt" in this case has become a semi-conventional symbol of the real article.

All three specimens are now in the Pitt Rivers Museum at Oxford.

HENRY BALFOUR.

Africa : Nigeria.

Dwyer.

On the Thunder-stones of Nigeria: Being extracts from a Report by Dr. Pierce M. Dwyer, President of the Ilorin Province of Northern Nigeria. **103**
Communicated, by Sir Frederick Lugard, K.C.M.G., High Commissioner, through Sir John Evans, K.C.B., F.R.S.

It may not be out of place in a report if I give . . . a brief *résumé* of the religion of Shonga, which is spread all over Yorubaland and Hausaland.

Shonga is the god of Thunder and Lightning and his wife is Oya, the Niger river. All the members of this religion are known by the peculiar way in which they do their hair, which is piled up in a crescent shape, along the long axis of the head, and by the red and white bead necklace and leaden bracelets. There is one supreme idol called Orisala, which takes the form of a woman; but each town has its own special idol, which is a slave to the Orisala.

The high priest is called the Arobadade, and is a man of great importance at all times, but of supreme importance at the time of the yearly feast, which lasts seventeen days. At the time of this feast a ram is killed, and the blood is smeared over the idol and over the priests. They kneel when praying, and look, as a rule, towards the town of Old Oyo, where the first king, who was a Shonga man, died by committing suicide.

In connection with this religion is one fact of, to me, extraordinary interest, which is that they worship, under the name of Adura, ancient "axe-heads" or "Celts"; they declare that these stones are the messengers from Shonga and endowed with peculiar properties when "fresh." When a house is struck by lightning and destroyed it is a sign that the inhabitants have offended Shonga, and it is necessary for the chief priest to extract the thunder-stone from inside the house. This is a sight well worth seeing. A big feast is held, and then the priest and a couple of his followers go alone inside, and, after a time, they come out with the stone. It is here that I was absolutely non-plussed to account for the extraordinary spectacle shown by the man who carried it. He held in his hand an iron dish in which rested the stone in what appeared to be liquid cow dung, and he was convulsed with the most marvellous muscular twitchings and shakes. I do not think it possible that any man could voluntarily throw his muscles into such a state of tremor. The natives declare it to be due to the freshness of the stone, which is, of course, all nonsense. As soon as the stone is found, the owners of the house have to pay a certain fee to the priest in order that he may gain Shonga's pardon for some crime they have committed.

Of course, if no house is struck by lightning, the priest sees that a fire takes place from other causes in order that he may gain his fee, but he is always able to produce the "Adura" stone.

I cannot trace where these stones come from, and have many times offered heavy bribes to the priest to tell me, and have always received the same answer, "They come from Shonga." When we remember the peculiar superstitions that exist at the present day in Europe, and especially, if I remember rightly, in France and Germany, as to these stones—one being that they are used by departed souls to knock at the gates of hell or purgatory—I consider it most interesting to find the same kind of superstition out here.

I will now show how this religion works on legal lines. If a person offends some of the Elders, or commits some crime, a few days after his house is burnt, the priests arrive and find the stone, and the accused has to pay a large sum for pardon.

Instead of his house being burnt, he may be accused, and if he denies, he has to undergo the trial of *Agbarisi ku*. This is performed thus: a skull of a person who has been killed by lightning is placed on the ground, base upward, a bowl of water in front of it, and a man with a rattle near. The accused has to throw off his clothes and beg that if he is guilty he may also die by Shonga in seven days. He then drinks from the bowl of water, in which first either the skull or a thunder-stone is dipped.

Another test is for him to visit the idol house and drink water in which it* has been dipped, after it is first smeared with medicine.

PIERCE M. DWYER.

Obituary: Brown.

Rudler.

John Allen Brown, F.G.S., born September 3, 1831; died September 24, 1903.

104

By the recent death of Mr. John Allen Brown, the Anthropological Institute has lost a valued member, whose name has been on its roll for the last fourteen years. Born seventy-two years ago, Mr. Brown had reached manhood before the question of the antiquity of man had ripened for full discussion. That discussion he followed with keen interest, and on his retirement from business, rather early in life, he devoted himself

[* The thunder-stone.—Ed.]

with assiduity to prehistoric studies. The implement-bearing gravels and brick-earths in the neighbourhood of his residence at Ealing afforded excellent exposures some five-and-twenty years ago, and Mr. Brown was not slow to avail himself of this opportunity of research. His observations at Ealing and Acton, following those of General Pitt Rivers, were the subject of several papers read before various scientific societies, and ultimately formed the basis of his book, published in 1887, under the rather happy title of *Palæolithic Man in N.W. Middlesex*. This is the work by which Mr. Allen Brown is best known. The *Journal of the Anthropological Institute*, however, not to mention any other publication, testifies to his activity in various directions. In the prosecution of his studies he formed a collection, rich in the relics of prehistoric times in this country and in ethnological objects from many other parts of the world. Mr. Brown delighted to exhibit and explain this collection to those interested in the subject. In matters affecting the social development of his neighbourhood, such as the free library movement, he took a keen and active interest. Mr. Brown, in fine, was one of those useful local men who take an intelligent interest in their surroundings; and while he lived and was able to work, geologists and anthropologists might rest assured that no new section in the neighbourhood was likely to escape his vigilance. It is worthy of note that Mr. John Brown, the father of Mr. J. Allen Brown, was largely instrumental, sixty years ago, in founding the Ethnological Society, which became merged in the Anthropological Institute.

F. W. RUDJER.

Africa, West.

Dalton.

Note on an unusually fine Bronze Figure from Benin. By O. M. Dalton, M.A., F.S.A. **105**

The ethnographical gallery at the British Museum has recently received a welcome addition in the shape of several bronzes from Benin presented by Mr. E. J. K. Corner. They comprise four of the flat plaques or panels, two of the large cast heads such as were sometimes used to support carved ivory tusks, and the figure of a man reproduced by the accompanying photograph. This figure is a remarkable example of its class, being no less than 2 feet 3 inches high, and is finely ornamented with punched designs. It is evident from the costume that the person represented is a retainer and not one of the noble or official caste. His costume resembles that seen upon numerous panels brought from Benin, and illustrates in an exceptionally clear manner the *beluku* or loin-cloth, with its end twisted up and stiffened at the left side of the wearer. The left arm is, unfortunately, wanting, and of the horn once grasped by the two hands there remains only the part to which the lips were applied. As the Museum is not very well off for figures cast in the round the present example forms an unusually desirable acquisition.

O. M. D.



FIGURE OF CAST BRONZE FROM BENIN.

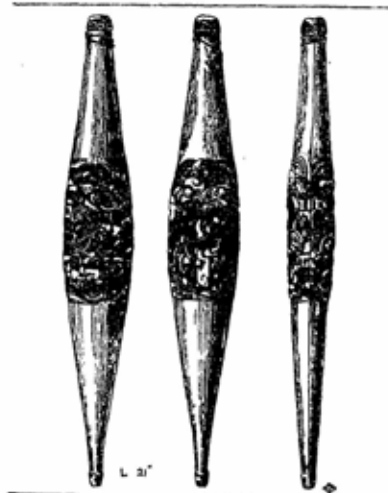
New Zealand.

Edge-Partington.

A New Zealand Flageolet. By J. Edge-Partington.

106

A few years ago, looking over some curiosities in a jeweller's shop in Edinburgh, I came across the subject of this note. It was at that time covered with oil paint, and was sold to me as the scabbard of a Japanese spear point. I was particularly fortunate in procuring such a fine specimen of this form of musical instrument—a very



rare occurrence nowadays. The name *flageolet* for this type rather than *flute* has been suggested to me by Mr. Balfour, as it is played by being blown into at the upper or larger end, as is shown in some of the old carvings. The mode of manufacture, as described by Parkinson, is plainly visible in the side view, namely, that after being fashioned and carved, but before being hollowed, it is split in two pieces; the two sides are then hollowed out, and when finished are tightly bound together at the two ends with either cord or strips of cane or fibre. The irregular surface caused by the splitting process renders the joints perfectly air-tight. In this specimen, in addition to the lashing, nearly all of which has disappeared, there are side loops, cut out from the solid for further securing the two sides, by means of ties. Taylor (Te-ika-a Maui) calls this instrument a "putorino."

The illustration is reproduced from a drawing by Mr. Charles Prætorius, for the third series of the *Album of the Pacific Islands*, by Mr. Charles Heape and myself (Pl. 178).

J. EDGE-PARTINGTON.

Wales.

Prætorius.

Note on an Old Welsh Gorse-Cutter. By C. Prætorius.

107

One of the many objects now replaced by modern machinery is the *cyrwr eithin*, which, I believe, means a knocker of gorse or gorse-cutter. This implement was in use in the county of Anglesey among the farmers with small holdings until about fifty years ago, and was used for preparing gorse as a horse food.

The chopper has two blades set at right angles to one another; they are attached to a heavy head of wood, into which is fixed a short handle.

In olden times outside the stable door a block made from the trunk of a tree was to be seen. On this the gorse was laid and moved forward as the chopping progressed. The operation was shredding rather than actually cutting up the gorse as is now done with the gorse cutters. When the old process was practised the gorse had a stringy appearance when prepared.



It was the custom for each member of the family to take their turn with the *cyrwr eithin*, and preparing the horse food formed the first part of the day's work.

The implement is clumsy and heavily made, and must have been fatiguing to use for any length of time. The gorse-cutters now used cut the plant much quicker and cleaner, but it is said that gorse prepared in the old-fashioned way is better for the horses, as there is a liability in modern cutters to leave the prickles intact.

C. PRÆTORIUS.

REVIEWS.

Africa, West.

Ling Roth.

Great Benin; its Customs, Art, and Horrors. By H. Ling Roth. Halifax: F. King and Sons, Ltd., 1903. 26 x 18 cm. 266 pp., 275 illustrations; index. **108**

In the present volume Mr. H. Ling Roth, whose services to the study of ethnography in England cannot be overstated, has brought together all the available information on the history and art of the most remarkable city in savage Africa. He has added an exact and interesting account of the British expedition of 1897, and of the appearance of the town at the moment of its occupation, derived from the letters and notes of his brother, Dr. Felix Roth, who, in his capacity of medical officer, accompanied the column and was an eye-witness of what took place. If we add that the book is freely illustrated by photographic reproductions not only of the well-known bronzes and carvings, but also of buildings, sacrificial altars and other remains which have since been destroyed, it will be obvious that the general reader will find it an invaluable guide to an unique phase of negro civilisation.

Of the nineteen chapters into which the work is divided, the first deals in a comprehensive manner with the early chronicles and the history of discovery from Ruy de Pina onwards; the second to the sixteenth with the physical characteristics of the people, their character, fetish observances, government, social institutions, methods of trading and making war, medicine, and amusements; the seventeenth, a very interesting chapter, describes the city and its buildings with the help of several important photographs; while the eighteenth and nineteenth are devoted to the works of art—carvings and metal castings—which have made the ethnographical reputation of Benin. Of the five appendices, Dr. Roth's description of the expedition and Mr. C. Punch's note on land tenure in Yoruba deserve a careful perusal. The fourth appendix, though unpleasant reading for Englishmen, should not be overlooked: it tells the story of the loss to British museums of antiquities which can never be replaced, and comments upon the different attitude of the Government to ethnographical science in Germany and in our own country.

It would appear that no very startling discoveries calculated to solve once and for all the mystery of the introduction of bronze casting into West Africa have been made in the interval of nearly seven years which has elapsed between the capture of Benin and the present time; possibly, however, the elaborate work shortly to be issued by the Museum für Völkerkunde at Berlin may have something to teach us on the subject. Mr. Ling Roth is inclined to believe that the natives were in possession of the art of casting by the *cire perdue* process, at any rate on a modest scale, before the arrival of Europeans in the country; but his reasoning on this point is not conclusive, and the analogies cited on p. 233 between Benin ornament and that of other parts of the world, if intended to suggest such effective cultural influences as might have helped to introduce bronze-working, are occasionally of a misleading nature. Some of the resemblances are purely fortuitous, and as such likely to become archaeological will only lead the unwary reader astray: external influences there undoubtedly were, but they need not be supposed to flow from too many points of the compass. In support of his theory that the Bini were acquainted with the method of casting before the arrival of Europeans, the author argues that the Benin bronzes illustrate a development of technical skill too rapid to be the result of a new knowledge suddenly introduced. But surely natives who were presumably skilful in carving wood and ivory would find a transition to a tractable material like wax a very easy matter if they had capable instructors; their best work would be produced almost at once while the effect of the tuition was still fresh; and any subsequent change would follow the lines not of development but of deterioration. The examination of any large series of castings, such as the panels at the British Museum, does not justify the assumption of a pre-European

period long or short ; the very abruptness with which the most admirable work appears on the scene is really an argument for the European hypothesis rather than against it. Indeed, one of the three panels in the series which have the appearance of greater antiquity than the rest, and are marked by a peculiar restraint of treatment not at all characteristic of purely native art, actually represents an European. Another point made by the author is that the Iberian peninsula can show no cast bronzes of equal merit dating from the period immediately preceding the first expeditions to Benin, and that the Portuguese are unlikely to have introduced a kind of work in which they did not themselves excel. Assuming the facts to be correct, we may still refuse assent to the induction. The crews of the pioneer vessels at the epoch of the great discoveries were not too homogeneous, and even such captains as Columbus did not always sail under their own national flags. Adventure is always cosmopolitan, especially if it happens to be lucrative. What was to prevent a German armourer, for example, from taking service with the men whose explorations down the West African coast were kindling the imagination of the world ? To put the whole question briefly, casting by the *cire perdue* process was well known in Europe in the sixteenth century, and there is no evidence that it was practised in West Africa prior to the advent of the Portuguese ; the *onus probandi*, therefore, still lies with those who hold that it was indigenous.

A disproportionate amount of space has, perhaps, been devoted to these controversial points, because the questions which they raise are of considerable historical interest ; but it must not be assumed that a disagreement with two or three pages of the book detracts in any degree from the highest appreciation of the remainder. In work of this kind theory can be safely allowed to stand over until all the solid facts are collected and classified ; and to this last and most arduous task Mr. Ling Roth has devoted himself with a thoroughness and a precision which leave nothing to be desired. *Great Benin* is quite an encyclopædia in miniature, and must prove invaluable as a book of reference. In more than one instance Mr. Ling Roth has been able to correct errors which had obtained wide currency ; thus he has disposed of the contention that the large cast bronze heads were not used, as the early chroniclers had affirmed, to support the carved ivory tusks. The photograph on page 79, supplemented by the clear statement of Dr. Roth, now places the fact beyond dispute. It is much to be desired that such monographs upon interesting parts of the British dominions should increase and multiply : Mr. Ling Roth has already furnished our shelves with standard books on Tasmania and Sarawak ; it is to be hoped that he is already at work on another volume of equal excellence with the present.

O. M. D.

Aryan Race.

Michaelis.

L'Origine degli Indo-Europei. By E. de Michaelis. Turin : Fratelli Bocca, 1903. viii + 700 pp. 24 x 16 cm. Price 15 lire.

109

This is one of the most voluminous, if not altogether luminous, contributions that have yet been made to the perennial Aryan question. The whole subject is here dealt with from every conceivable point of view, and a vast amount of erudition is brought to bear on a multitude of topics which are either directly or indirectly connected with Aryan origins, and range, so to say, from the crude ethnological tables of Genesis to Sergi's last essay on the Eurafian peoples. But the book lacks method, the criticism of rival theories is not always sound though never intentionally unfair, and there is so much needless repetition that the reader seems to be at times lost in a maze of sunless tracks ramifying aimlessly through the Amazonian woodlands. Thus the issues are often greatly obscured, and it is difficult even to grasp the author's particular view, or at least to see where it differs *essentially* from those of Latham, Isaac Taylor, and the other

extreme advocates of the European origin of the Aryan family. A main feature of the author's theory, on which he lays great stress, is that the proto-Aryans are not to be regarded either as a distinct race or as a homogeneous fragment of a race, but as a *people*, or rather as a group of populations anthropologically constituted of many of the elements already pre-existing in the European domain, and he is at much pains to show on historic and archaeological grounds that this domain, this Aryan cradle-land or centre of dispersion, lay in the Middle and Lower Danube basin. At the same time Taylor's well-known Finno-Aryan assumption is not rejected, but explained as a plausible hypothesis not yet completely established, hence to be received with great reserve. Then an attempt is made to show that, should Taylor's views be accepted, his own conclusions on the geographical seat and anthropological constitution of the proto-Aryans might still be easily maintained. To remove this apparent contradiction it is argued that "the differentiation of the Ugro-Finnic stock in the Ural region took place after the fusion of the blonde European longheads with the brachycephalic Mongols of Asia, and if it should be admitted that the proto-Aryans sprang from a Finnish branch, as is held by the advocates of a [primordial] Finno-Aryan unity, there could be no stronger confirmation of our views on the ethnical nature of the proto-Aryan people." Of course, it is not pretended that things proceeded quite in this way, and it is allowed that the proto-Aryans did not spring "in the strict sense" from an old branch of the Ugro-Finns. Still a fundamental relation being "undeniable" between the Aryan and Finnic stock languages, while the profound differences between the two races cannot be overlooked, it seems to the author that the best explanation of these contrasts and affinities lies in his assumption that "the same elements concurred in the formation both of Finns and Aryans, but in diverse proportions and under different environmental conditions."

As far as I can understand it this appears to be the gist of the whole argument, and the foundation of a new theory which rests on no new facts, and is, after all, but a slight modification of older and now nearly obsolete views. This revival of the Finnish factor is to be regretted, as tending to increase the confusion in an already sufficiently complicated problem, and as based on a purely hypothetical Finno-Aryan mother-tongue, the existence of which is strenuously denied by Thomsen and Winkler, the two philologists who have the best right to an opinion on this most obscure linguistic subject.

It was above remarked that the author's criticisms of rival theories are not always sound, and I have personally to protest against one statement which strangely misrepresents and vitiates one of the fundamental arguments in my own theory. In the chapter dealing with the Asiatic side of the question, the author expresses his surprise that I should suppose that the early brachycephalic stream setting from Asia through Anatolia to Europe "was ethnically Aryan," and reference is given to *Man Past and Present*, p. 514. If the reader will turn to this passage he will find that the short-heads in question are here represented by me, not as "ethnically" but *linguistically* Aryan. The distinction is vital, as I am here arguing that these short-heads were *not* ethnically Aryans, but Aryanised in speech by their presumably dolichocephalic Aryan neighbours before they passed through Asia Minor into Europe.

But if the Aryan problem is left much as it was, it is not to be supposed that the learning and labour lavished on this work have been thrown away. On the contrary, his extensive and accurate knowledge of the bibliography of the subject has enabled the author to produce a volume which, even despite the regrettable absence of an index, possesses very great and permanent value as a book of reference on all matters in any way connected with Aryan origins. But it is something more than this, and the unbiassed critic will readily admit that its pages abound in shrewd and original remarks which are often highly suggestive. Thus, it is pointed out that "in the anthropological concept of race are included two inseparable terms; on the one hand a group of men

"or peoples possessing a certain sum of like characters; on the other, the physiological kinship of such groups, that is to say, their descent from common ancestors. Hence to speak of the Aryans as a race is an error or abuse of language. But the expression, used conventionally, has still a meaning, if overlooking the genetic factor, we take into consideration the common inheritance of the mental and moral, and especially of the linguistic characters. In this way we shall bring ourselves to regard not the bodies but the souls of the Indo-Europeans as forming a race. In a word, we should look rather to their psychological than to their physiological and somatic kinship, while metaphorically denoting the one with the same term that is used to indicate the other." And this informing thought is followed up by a series of reflections which explain and justify such current expressions as "European culture," "Western civilization," the "European family" (of nations, languages), and so forth. A. H. KEANE.

Religion.

Macdonald.

The Development of Muslim Theology, Jurisprudence, and Constitutional Theory. By Professor D. B. Macdonald. London: George Routledge and Sons, 1903. 20 x 14 cm. Price 5s. **110**

When Professor Macdonald attempted to describe the development of Muslim Theology, Jurisprudence, and Constitutional Theory within the limits of a small handbook, he undertook what seemed to be an impossible task. The survey extends over a period of 1,300 years; the materials are, perhaps, quite as extensive and intricate as those with which the historian of Christianity is concerned, and this is practically the first attempt which has been made to reduce them to some semblance of order. But this is an age of small books on great subjects, and we have not only to congratulate the author on his courage in attempting a well-nigh impossible task, but to thank him for giving us an exceedingly interesting and valuable book. It has the great merit of being based on an independent study of the materials, and the style is graphic and picturesque.

But the sketch is admittedly a fragment. The author, for instance, has been unable even to touch on the important sect of the Persian Bâbis, regarding whom Professor E. G. Browne has collected much valuable information. When he speaks of Muslim Theology, he practically confines it to that of the Sunnis, or Traditionalists, and ignores that of their rivals, the Shîas. Turkish and Persian mysticism, and the strange developments of the modern pietistic sects in India, also find no place in his survey. The scheme of this book did not permit the citation of authorities in footnotes, and we have only a general bibliography.

But with all these limitations the book, for the present at least, is indispensable for all students of the development of Islâm. It may be hoped that Professor Macdonald will be encouraged to expand it into a more elaborate treatise, and furnish full references to the authorities on which his survey is based. W. CROOKE.

Torres Straits.

Myers: McDougal.

Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol. II. Physiology and Psychology. C. S. Myers and W. McDougal. **111**
Cambridge (University Press), 1903. 29 x 23 cm. Price 7s.

This volume is devoted to the study of the sensations, other than visual, among the tribes visited by this expedition in Torres Straits, Sarawak, and New Guinea. It is full of very interesting material, full details of which are given in tabular form. As far as possible the results have been compared both with those of other observers and with a similar series of observations on Englishmen, conducted by the author under similar conditions to those employed in the field, to afford points of contrast. However, on the

one hand, as was obvious from the nature of the case, the number of individuals studied in any given area could never be great; and, on the other, as this is almost a new field of research, but little material for comparison exists. This monograph will, however, serve efficiently for a groundwork for some future comparative physiological psychology.

It seems really surprising that Drs. Myers and McDougal should have accomplished so much, considering the difficulties involved in the transit of the necessary apparatus, and in persuading the natives to follow out the instructions given them.

The chief results, briefly expressed, would seem to be as follows:—

The general auditory acuity and the power of distinguishing between two tones of nearly identical pitch are less among the Murray Islanders than the people of the Aberdeen countryside investigated as controls, while the upper limit of hearing was much the same in both instances. The average olfactory acuity was slightly higher in Murray Island than in Aberdeenshire, and in both places was higher among children than adults. The Torres Straits natives show much the same liking and disliking for odours as Europeans.

Under the sense of taste will be found an interesting discussion on the nomenclature employed by various linguistic groups for the resulting sensations, and it is interesting to note that in many parts of the world, including Europe, sweet means literally tasting good, while the greatest indefiniteness occurs in connection with bitter, for which sensation, indeed, in many cases no definite word exists.

Some degree of racial difference appears to exist as regards delicacy of tactile discrimination, the Murray Islanders being far more sensitive than the Sea Dyaks, and these in turn than Englishmen. As neither of these former groups habitually wear any covering for the forearm—one of the chief areas the sensitiveness of which was investigated—this possible source of error may be excluded. No recognisable correlation could be determined between delicacy of tactile discrimination and accuracy of tactile localisation. The susceptibility to pain of the Murray Islanders appeared to be about half that of Europeans. As regards reaction times, for auditory stimuli the Murray Islanders and the Englishmen were about equal, but for visual and choice-visual reaction the Englishmen responded quicker than the Murray Islanders, but the young Sarawak adults quicker than either. Other chapters deal with the muscular sense and variations in blood pressure among the races investigated.

A close study of the results obtained by this expedition is a necessity for any enquirer in the field of physiological psychology. F. S.

Peru.

Mead.

The Musical Instruments of the Incas. By Charles W. Mead. American Museum of Natural History, New York. Guide Leaflet No. 11. New York, 1903. 25 × 16 cm. **112**

Among recently issued numbers in the excellent series of *Guide Leaflets*, published by the American Museum of Natural History, is one by Mr. C. W. Mead, dealing with the ancient musical instruments of Peru. Considering the limited space at the author's disposal, it is very creditable that so good a *résumé* of the subject has been offered to the public. The pamphlet is copiously illustrated with figures reproduced from photographs, either of the instruments themselves, or of examples of pottery vessels and other objects in which representations of musical instruments occur, these latter being of interest both on account of their showing the manner in which the instruments were played, and from the fact that certain instruments, such as the membrane-covered drums, have not as yet been discovered in the *huacas*, owing, probably, to their perishable nature, their actual

form being alone indicated by the figurines and other native designs, though brief mention of them is made here and there by the earlier writers on Peru.

The percussion instruments were not very numerous, but it is probable that the drum, as is so frequently the case in other parts of the world, played an important part in ceremonial observances. Wind instruments are well represented, and include the syrinx (occasionally, though rarely, made of stone), trumpets—usually of shell—whistles, globular flutes, and notched end-flutes. Of these the last is an important and well-represented class, and from the numerous examples found this must have been a very popular instrument. Mr. Mead gives the scale of notes obtainable from many of the wind instruments, a very useful piece of information, since as yet there is no certainty as to the nature of the ancient Peruvian musical scale. One interesting point in regard to the Peruvian syrinx is not referred to by Mr. Mead, and this is the curious fact that some of the stone panpipes are furnished with stops, whereby two notes may be obtained from each pipe so provided.

Stringed instruments are conspicuous by their absence from finds of pre-Columbian date in Peru, and Mr. Mead agrees that, so far, there is no evidence of their having existed. It is even probable that this applies further to the whole of the New World.

The New York Museum is to be congratulated upon the useful series of *Guide Leaflets* which are being produced. They will certainly help to stimulate public interest in the valuable collections of that institution, and they are also of use to students in the various subjects dealt with.

HENRY BALFOUR.

PROCEEDINGS OF SOCIETIES.

London.

Anthropological Institute.

Tuesday, November 10th, 1903. Ordinary Meeting. Mr. H. Balfour,
President, in the chair.

113

The election of the following as Ordinary Fellows of the Institute was announced : —Miss Pullen-Burry, Mr. William Wright, M.B., F.R.C.S., Mr. C. H. Blakiston, B.A., Dr. E. W. Waters, Mr. H. Raynbird, Jr., Mr. T. M. Hocken, M.R.C.S., F.R.G.S., Mr. G. W. Kirkaldy, Mr. D. D. Kirkaldy, and Mr. F. B. E. Goldney.

Dr. F. W. Edridge-Green exhibited a series of pictures painted by colour-blind persons, showing different degrees of colour blindness. The exhibit was discussed by Dr. Garson, Dr. Gladstone, Mr. Atkinson, Mr. Raynbird, Mr. Tabor, and the President.

The President read a paper by Mr. Annandale on *The Survival of Primitive Implements in Iceland and the Faroes*, and illustrated it by an exhibit of several of the implements described. The paper will appear in a forthcoming number of the *Journal*. The paper was discussed by Mr. Lewis, Dr. Felkin, Mr. Gowland, Dr. Garson, and the President.

Tuesday, November 24th, 1903. Ordinary Meeting. Mr. H. Balfour, President, in the chair.

The election was announced of Dr. Dilcham, Professor Carveth Read, and Dr. W. L. Abbott as ordinary Fellows of the Institute.

Mr. O. M. Dalton, M.A., F.S.A., exhibited and described an inscribed wooden tablet from Easter Island. The exhibit was discussed by Dr. Arthur Evans and the President.

Mr. J. L. Myres, M.A., F.S.A., read a paper on *The Early Pot Fabrics of Asia Minor*, which was discussed by Dr. Arthur Evans and the President.

MAN

SUPPLEMENTARY MATTER, 1903.

PRELIMINARY NOTICE.

The supplementary pages, of which this is the first issue, are designed to facilitate the publication of *Reviews*, *Proceedings of Societies*, and other short articles, for which sufficient space has not been available in *MAN* hitherto.

The pages are numbered in sequence to the pages of the December sheet of *MAN*, and, though issued monthly as occasion requires, are intended to be bound up together at the end of the annual volume.

The articles are provided, as in *MAN*, with distinct reference numbers, beginning with the next clear century of numerals above that in which will fall the reference number of the concluding article in the December sheet of *MAN*.

It is by these reference numbers, and not by the page reference, that these articles should be quoted; e.g., the article, with which the adjacent column ends, should be quoted as "*MAN*, 1903. 202."

REVIEWS.

Pacific. Brigham.
Ancient Hawaiian Stone Implements. 201
Memoirs of the Bernice Pauahi Bishop
Museum of Polynesian Ethnology and Natural
History. Vol. I., No. 4. By W. T. Brigham,
A.M. Honolulu, 1902. 4to. 100 pp., lxx.
plates and 97 figures in the text.

This volume adds another section to the history of Hawaiian art and industry which the author's previous monograph on feather-work formed so brilliant a chapter. Professor Brigham's association with Hawaii dates from thirty-six years back. He knew the islands when the ancient way of living was yet but little modified; and he had opportunities of associating with the early missionaries and with natives of the older generation, from whom he derived information which, but for his enthusiasm, would now have been wholly lost. His present treatise on the stone industry of the group is very exhaustive, and the numerous plates and illustrations, all of excellent quality, give an admirable idea of the appearance of the actual objects. Books of this kind are not only useful to the student of ethnography, but are also highly suggestive to those whose chief interest lies in the province of prehistoric archaeology. It is often difficult to guess the use of prehistoric stone implements of unusual form; for the needs of primitive people are restricted, and without special information it is difficult to imagine for what purpose abnormal objects were required. It is to monographs like Professor Brigham's that we must turn for hints to assist us in solving such problems in the light of ethnographical research. In this connection mention may be made of the oval stone with two lobes at one end used for

smashing in an adversary's canoe in war, figured on page 9, and of the curious "door stone" illustrated on page 19, which was suspended at the entrance to the hut in such a way as to fall with all its weight of thirty-six pounds upon any unauthorised intruder. Probably few persons unacquainted with the special conditions of life in Hawaii would have divined the use of either object. Again, the grooved stones (Plate 39) attached to hooks for catching squid would by most people have been assigned to the convenient class of "net-sinkers."

All the recognised types of Hawaiian implements and weapons are fully described, with many parallel objects from other parts of the Pacific, and one of the plates represents a series of the curious stone figures from Necker Island. It is perhaps invidious, in the face of so many excellences to point out a trifling error in the earlier part of the book, but surely the author is mistaken in describing the axe (No. 1,539), figured on page 7, as of Maori origin. The remaining chapters of the history will be awaited with interest, for when they are all issued we shall be in possession of one of those complete accounts of a definite territory which it is the ideal of ethnography to produce for all parts of the vanishing primitive world. O. M. D.

Ethnology. Avebury.

The Origin of Civilization and the
Primitive Condition of Man. By the 202
Right Hon. Lord Avebury, F.R.S., D.C.L.,
LL.D. 6th edition. London: Longmans.
1902. Pp. 577, 8vo. Price 18s.

The new edition of Lord Avebury's great compilation differs from the last only by the

addition of a few new facts gleaned from the works of the most modern travellers; the great mass of the book remains entirely unaltered. In fact, the author in his preface states that he "sees no reason to change in any essential respects the opinions originally expressed." Consequently the book sheds no new light on the more obscure questions of anthropology, such as primitive marriage and totemism; and those who already differ from Lord Avebury on such points will find no reason to change their opinions. Perhaps the chief complaint which readers of the work will make is that the somewhat antiquated illustrations of the last edition have not been replaced by others of a more modern character. However, a new edition of a work such as this (which is, after all, a veritable storehouse of anthropological fact) can never come amiss, and as such it will be welcome to all who are interested in the subject. T. A. J.

Ethnology: England.

Boxall.

The Anglo-Saxon: A Study in Evolution. By George E. Boxall. London: Grant Richards, 1902. Pp. viii-331. 20 x 13. Price 6s.

The author of the *Anglo-Saxon* has certainly succeeded in putting before his readers the questions which he sets out to answer in a very clear manner, but he has perhaps been somewhat unfortunate in his choice of method. In his analysis of the character and institutions of the Anglo-Saxon, he differentiates two racial elements of which they are the result, the Melanochroi, or Latins, and the Xanthochroi, or Teutons. The predominance of the latter, the author holds, makes for progress, while the influence of the former acts as a check in progress. As a result of his method the author is compelled to class together the dark races inhabiting Britain at the time of the Roman invasion with the Romans themselves; the races who took part in the Saxon invasion are classed together in Xanthochroi, while the Normans are spoken of as Latins. It is with this as his guiding principle that the author has analysed Anglo-Saxon institutions. E. N. F.

Customs: England.

Vaux.

Church Folklore. By the Rev. J. E. Vaux, M.A., F.S.A. London: Skeffington, 1902. Pp. xxiii-450. 19 x 13. Price 6s.

In this excellent little book on church folklore the author has gathered together a

mass of information with regard to curious customs and superstitions connected with the English Church. Although part of the material has already been published in various forms, it is here brought together in a handy form. A great part of the book, it is true, deals with customs which could hardly be called folklore at all in the strict sense of the term; the chapters which will prove most interesting to the anthropologist are those dealing with marriage and burial customs, holy days, holy wells, survivals of heathen times and the chapter on ignorance and credulity. The method of arrangement employed is excellent, making the book very handy for purposes of reference. E. N. F.

Mythology: Semitic.

Zimmern.

The Babylonian and the Hebrew Genesis. By Heinrich Zimmern, Ph.D., Professor of Semitic Languages in the University of Leipzig. (The Ancient East, Vol. III.) London: Nutt, 1801. 8 x 5, pp. 64, paper. Price 1s.

This is a translation of the useful little essay, *Biblische u. babylonische Urgeschichte*, which was first published as No. II. 3 of the German Vorderasiatische Gesellschaft's series *Der Alte Orient*, and it will probably be acceptable to an increasing class of readers in this country. Since the publication of George Smith's *Chaldean Account of Genesis*, as long ago as 1876, a fairly constant stream of literature, good, bad, and (mostly) indifferent, has been poured out on an apparently inexhaustible topic; and public opinion, in this country at all events, has timidly swung round in the interval towards a less superstitious point of view. The bibliography appended to this essay marks some of the more important landmarks of progress; and the essay itself forms a convenient and dispassionate summary of current opinion. The translation is carefully executed. J. L. M.

Mythology: Northern.

Jireczek.

Northern Hero-Legends. By Dr. Otto Luitpold Jireczek. Translated by M. Bentineck Smith. (Temple Primers.) London: Dent, 1902. 6 x 4, pp. viii-146, cloth. Price 1s. net.

To students of Northern Mythology, Dr. Jireczek's *Deutsche Heldensage* needs no recommendation; and there will be many to welcome the appearance of this English version. For those who may have been unacquainted with the original essay, it may be

well to note that its object is to summarise the present state of knowledge in regard to the origin and development of Germanic poetry, from the mythical and half-historical songs described in the *Germania* of Tacitus, to the revival of the literary epic in Scandinavia in the fourteenth and fifteenth centuries. A brief introduction puts together the main conclusions which are of general application, and defines the "German Hero-saga," which the essay sets out to examine; then follow detailed analyses of the *Saga of the Niblungs*, the *Cycle of Dietrich of Bern*, the *Ermanarich Saga*, the *Waldere Saga*, the *Ortnit Wolf-Dietrich Saga*, *King Rother*, the *Weland Saga*, and the *Saga of Hilde and Gudrun*, with a short critical and historical commentary in each case. At the end come a brief bibliography and a copious and workmanlike index. A good portrait of Jakob Grimm is given as a frontispiece. The English translation is excellently done. J. L. M.

Africa, East.

Austin.

Among Swamps and Giants in Equatorial Africa. By Major H. H. Austin, **207** C.M.G., D.S.O., R.E. London: C. Arthur Pearson, 1902. Pp. xii-354, with two maps. 21 x 14. Price 15s.

In this book Major Austin has given an interesting account of two expeditions sent out to survey the unexplored regions which lie between the Abyssinian and Egyptian boundaries. The first journey which lasted from October 1899 until July 1900, had for its object the survey of the Sobat region, while the second from Omdurman to Mombasa *via* Lake Rudolf, was intended to complete the survey which had previously been carried by the author from the side of Uganda as far as the northern end of Lake Rudolf. Unfortunately, the exigencies of the journey, and the hostility and timidity of the natives on the line of route of the second expedition were such as to prevent Major Austin from giving more than a summary account of the natives of the country. Though brief, his account of the nomad Turkana, whose average stature he gives as 6 feet, and of the Wa-Suk, is of great interest. The book is illustrated by two maps and several plates. E. N. F.

Africa, West.

Read.

Iron Smelting in South-East Angola. By Rev. F. W. Read, *Journ. Afr. Soc.* Vol. II., No. V., pp. 44-49. London: Macmillan, 1902. **208**

This paper describes the processes of iron smelting and native blacksmith's work in

Ondulu country. The ore is picked up in abundance on the surface of a mountain between the River Kwanza and its tributary the Kutato. This locality is the centre of the hoe-making trade for a wide extent of country, each group of villages doing its own smelting at a place selected just outside the village. The men cut the wood and make the charcoal; the women join them after cultivation is over, when the entire population collects the ore. The kiln is a long narrow erection made of pieces of anthills, lined with a wall-layer of mixed charcoal and ore, filled up within with charcoal, and plastered over with mud (diagram, p. 45). The bellows and other implements (figured facing p. 46) resemble those described in Hobley's *Eastern Uganda* (1902), p. 19. The smelting is inaugurated by religious rites conducted by the leaders (*ocicula*) of the blacksmiths' guild, and a kiln section of ten to fourteen feet in length is smelted in a day. The iron, which is obtained in a spongy condition, is divided among the families of the village, and welded into hoes during the next wet season.

The smiths, who make the hoes, form a hereditary guild like that of the smelters. Apprenticeship is long and arduous; and the work is mostly done in the early morning, ending an hour or two after sunrise. The making of the blacksmith's tools is a "fetish" and connected with many interesting rites; the sledge hammer (*anjundo*) being the object of peculiar veneration, as the provider of food for the people. The paper concludes with a technical vocabulary and the native legend of the discovery of iron.

J. L. M.

Japan.

Brownell.

The Heart of Japan. By C. L. Brownell. London: Methuen, 1902. **209** Pp. xii-302. 21 x 13. Price 6s.

Books about Japan are rarely uninteresting, and *The Heart of Japan* is no exception to this rule. Although the book is written frankly to amuse, the author writes with a keen appreciation of the salient points in the Japanese character, and with no little understanding of their modes of thought. Incidentally the author gives much information as to customs which are rapidly falling into disuse, while the chapter on children's games is particularly interesting. Humorous as is the description of the manners and customs of the Japanese, few authors have brought out more clearly the contrast between the life of the old Japan

and the new, and the effect that contact with Western civilisation has had upon the Japanese character.

E. F.

PROCEEDINGS OF SOCIETIES.

Royal Geographical Society.

Ordinary Meeting, 15th December, **210**
1902. Sir Clements Markham, K.C.B., F.R.S., president, in the chair.

Dr. Karl Lumholtz described *Twelve Years' Exploration and Research in Mexico*. His main field was the western Sierra Madre, of 6,000-8,000 ft. elevation, which stretched through the greater part of Mexico, and might be considered as a continuation of the Rocky Mountains. His journeys extended over parts of the years 1890-98; and on his third and longest expeditions, which lasted from March, 1894, to March, 1897, he discharged his companions and remained for months, living exclusively among Indians.

The purpose of his expeditions was to discover the relations between the ancient cultures of the valley of Mexico and those of the Pueblo Indians of the south-western part of the United States; to give a correct picture of the ethnical status of the Mexican natives; as well as to throw light on certain phases in human development. The tribes visited were the Northern Pimas, the Tarahumares, the Tubars (now nearly extinct), the Tepehuanes, the Coras, the Huichols, the Tepecanos, the Nahuas of the west coast of Mexico, and the Tarascos of Michoan. All these Indians are of similar physique, medium sized, of a light chocolate-brown, with straight, jet-black hair. Two tribes, the Tarahumares and the Huichols, are of special interest, because they are the least affected by civilisation.

The Tarahumares live chiefly in caves. Their endurance and insensitiveness to pain are remarkable, while for barbarians they were very polite.

The Huichols, who live in the southern part of the Sierra Madre del Norte, in the State of Jalisco, number about 4,000. Their country is about 40 miles long and 20-25 miles broad, and as it is exceedingly mountainous and difficult of access, the inhabitants have remained in a very primitive condition. He referred to the peculiar plant worship which the Huichols had in common with the Tarahumares, namely, the cult of certain species of small cacti. Among the Huichols and also among the Tarahumares several varieties of cacti (*Mamillaria* and *Echinocactus*) are greatly worshipped and feared.

These tribes of Sierra Madre del Norte must ultimately become absorbed into the great nation to which they belong, and the country would have no reason to regret such inoculation with aboriginal strength and thought, for the influence upon the Mexican nation of the tribes that had risen to a certain stage of civilization at the time of the conquest had been great and beneficial. The Indian of Mexico was well treated by the Mexican Government, and was considered a citizen. Pure-bred Indians had become prominent as governors, generals, and clergymen.

The paper was followed by a discussion, and will be published in full in the *Geographical Journal*.

RECENT PUBLICATIONS.

List of Books and Papers presented to the Library of the Anthropological Institute. **211**

Physical Anthropology.

DAFFNER, Dr. FRANZ.—*Das Wachstum des Menschen*. Leipzig, 1902.
FAWCETT, CICELY D., and LEE, ALICE.—*A Second Study of the Variation and Correlation of the Human Skull. With Special Reference to the Naqada Crania. Biometrika*. Vol. I., No. 4, Aug., 1902 [in print].

London, 1902.

FIRST, CARL M., and RETZIUS, GUSTAF.—*Anthropologia Suecica*. Stockholm, 1902.

SMITH, G. ELLIOT.—*On the Natural Preservation of the Brain in the Ancient Egyptians (Journ. Anat. and Phys., Vol. XXXVI.)* [reprint].

London, 1902.

Archæology.

MADRAS.—*Government Orders relating to Archaeology*, July, August, 1902. Madras, 1902.

READ, C. H.—*A Guide to the Antiquities of the Stone Age in the Department of British and Medieval Antiquities, British Museum*.

London, 1902.

Ethnography and Travels.

BIRCH, JOHN GRANT.—*Travels in North and Central China*. London, 1902.

BOXALL, G. E.—*The Anglo-Saxon. A Study in Evolution*. London, 1902.

BROWNELL, C. L.—*The Heart of Japan*.

London, 1902.

BRYCE, JAMES, D.C.L.—*The Relations of the Advanced and the Backward Races of Mankind*. Oxford, 1902.

CONGO MUSEUM.—*Annales du Musée du Congo. Notes Analytiques sur les Collections Ethnographiques du Musée du Congo. Tome I., fasc. I.* Brussels, 1902.

FURNESS, W. H.—*The Home-Life of Borneo Head-Hunters; its Festivals and Folklore*.

Philadelph., 1902.

HEGER, FRANZ.—*Alte Metallomnien aus Südost-Asien*. Leipzig, 1902.

INDRA, K. K.—*Südseefahrten: Schilderungen einer Reise nach den Fidschi-Ineln, Samoa, und Tonga*. Berlin, 1903.

Mention in the above list does not preclude from subsequent review in MAN. Publications which have been already reviewed are distinguished by an asterisk (*).

M A N

SUPPLEMENTARY MATTER, 1903.

REVIEWS.

Mexico.

Lejeal.

Les Antiquités Mexicaines. By Léon Lejeal. (Bibliothèque de Bibliographies Critiques.) Paris: Picard, 1902. 25 x 15. Pp. 79. Price 5 francs. **212**

M. Lejeal is Lecturer on American Antiquities at the Collège de France, and, as he modestly explains, has been obliged by his own studies to draw up a select list of this kind. In other words, he is practically the first in the field, and students of American antiquities will be correspondingly grateful. He has also had constant access to the library of the Duc de Loubat, and the advice of Dr. Henri Stein, MM. Charnay, Dorez, and other specialists, and his proofs have been revised by Dr. Hamy.

"Mexico," for M. Lejeal, includes the whole of the old vice-royalty of New Spain, with the exception of those northern districts of it which now belong to the United States. It includes, therefore, the five central American states as well as the modern state of Mexico, and the bibliography, therefore, covers the literature of the antiquities of Yucatan as well as those of Mexico in the narrower ethnographic sense.

The bibliography does not pretend to be complete; but it is none the less welcome on that account. The vast literature of the conquest, in particular, which is covered by the great bibliography of Harisse, is dealt with very summarily; and of the philological sources only a few of the most important are included. Throughout, moreover, antiquated or mainly speculative works are ignored intentionally, and an attempt is made in the case of most of those which are admitted to estimate in a few words their relative value, and in some instances to give a *résumé* of their chief contents.

These *résumés*, and the difficult work of selection itself, seems, so far as one can judge, without longer use of the book than the occasion has demanded, to have been carefully and judiciously done; there are a few misprints, however, and the foreign titles are not always correctly rendered. Under No. 375, note that the *Journal of the Anthropological Institute* began in 1871, not in 1863, and ceased to be "trimestrial" in 1889. The volumes before 1871 are those of the older

Ethnological Society and Anthropological Society, out of the fusion of which the present Institute arose. J. M.

Archaeology.

Lowrie.

Christian Art and Archaeology: being a Handbook to the Monuments of the Early Church. By Walter Lowrie, M.A. New York and London: Macmillans, 1901. 20 x 13. Pp. xxiv + 432, with 182 illustrations in the text. **213**

This useful volume is one of that series of *Handbooks of Archaeology and Antiquities* which already includes such well-known books as Gardner's *Greek Sculpture*, Hill's *Greek and Roman Coins*, and Warde Fowler's *Roman Festivals*; and it need only be said that it maintains the high standard which its predecessors have set.

Mr. Lowrie had opportunities, as a Fellow of the American School of Classical Studies in Rome, of making himself personally acquainted with the rich stores of monuments which survive in Rome and its neighbourhood; and the result is evident in the graphic freshness of his descriptions, and in the judgment with which his illustrations have been selected. Though the object of the book is primarily to describe and explain the actual monuments of the centuries from the second to the sixth, the occasions are innumerable on which it throws useful side-lights both on the social history and on the religious beliefs of the period: and, in particular, on the successive phases of transition from pre-Christian modes of thought and feeling, and on the survival in all departments of life of much that was strictly non-Christian, long after its meaning was obscured or transfigured.

There is a brief index, and a well-chosen bibliography of some ten closely-printed pages. The book will be found useful and trustworthy by many students of the history of religion and art who are not primarily concerned with the Early Christian Church.

J. L. M.

Linguistics.

Skeat.

The Lay of Havelok the Dane. Edited by W. W. Skeat, LL.D., Oxford: Clarendon Press, 1902. Pp. lx + 171, with two facsimiles. 18 x 12. Price 4s. 6d. **214**

Havelok appeared about 1301. The thirteenth century had seen the struggle of national against foreign influences, the integration of our race, the new birth of our language. Two streams united to form a national literature: (1) original poems continuing the Old-English current, *The Ormulum* (1225), *The Battle of Leves* (1234), *The Owl and the Night-gale* (1270); (2) translations of contemporary Anglo-French chronicles, treatises, and romances. These latter poured in from French and Celtic sources in Edward I.'s reign. *Havelok*, probably indigenous, has the vigorous self-sufficiency of narrative that marks Old-English poetry, and nothing of the mysticism of *Sir Gawayne* or the allegory of later romance.

The dialect (probably East-Midland) is obscured by mixed forms and chaotic spelling. Professor Skeat explains this by the difficulties which an Anglo-French scribe would find in such sounds as *wh*, *ld*, *nd*, *th*, *w* before *o*, *gh*, *ghl*. We know that these sounds were wanting in French, pronounced in English, and always expressed in Middle-English writing. Yet *Havelok* has *qui* (why), *werde* and *werl* (world), *gol* (gold), *lou* (land), *neth* (net), *wlf* and *weman*, while *knith* alternates with *knith*, and even *knit*, an omission of the gutteral unknown before Lydgate. Clippings such as *we* for *wel*, *op* for *oper*, abound. The Old-English symbols for *w* and *th* are confused, the Old-English *s* confounded with *f*, *phes* stands for *pef* (thief), *slawen* for *flawen*. Yet these symbols were still in use. All these mistakes are just such as we should expect from an Anglo-French scribe and cannot be rationally explained otherwise. The fact that Lydgate, unlike Chaucer and Langland, could rhyme *light* with *bite* bears out Professor Skeat's theory that the adoption of English by the French-speaking classes weakened the gutturals.

Havelok is rich in antiquarian interest. It tells of the founding of Grimsby by Grim, the Danish fisherman and foster-father of *Havelok*. (We may note that Sir Henry Havelock came of Grimsby ancestry.) A miraculous light about the sleeping hero's head reveals his lineage (586-605 and 1251-1274)—the only touch of mystery. Wrestling and putting the stone mark the festivities at Lincoln (979-1058), and the feast of *Havelok's* accession is also kept with jousting, sword and buckler play ("skirming of talevas"), bull and bear baiting, games of "hasard" (dice), and "mine" (backgammon) (2320-2353). The ordering of an earl's table

is described (895-897, 1726-1731), the turf and "star" used for fuel (939). *Havelok* founds a priory of black monks at Grimsby (2520-2529). Justices itinerant are mentioned (263). The good days of Alfred seem shadowed forth by the reign of Athelwold (27-105).

Professor Skeat's scholarly unravelling of the metrical and linguistic difficulties, and the sources of the story add much to the pleasure and interest of reading it.

H. E. G. R.

Babylonia: Religion.

Jeremias.

The Babylonian Conception of Heaven and Hell. By Alfred Jeremias, Ph.D. **215** (*The Ancient East*, No. 4.) London: Nutt, 1902. 18 x 12. Pp. viii-52. Price 1s.

It will be long before anything like a full account is possible of the religion of ancient Babylonia. But a good deal has been made out, with some certainty, even in detail; and much of this has so obvious a bearing upon Jewish, and through Jewish upon Christian, religious beliefs, that it necessarily possesses a profound interest for a wide circle of readers. Dr. Jeremias—whose larger work on the same subject is well known—has therefore done good service in compiling this brief essay. He has summarised briefly the knowledge derived from the excavation of ancient cemeteries as to the funeral customs of Babylonia, and their significance; he has stated in concise language the main features of the corresponding mythology of the under-world and of the magical arts by which communication was believed to be maintainable with it; and has indicated, with judgment and caution, the extent to which conclusions may be drawn as to a Babylonian belief in a "personal immortality" and a "blessed state" hereafter. A brief bibliography is appended.

M. L.

Egypt.

Wiedemann.

Popular Literature in Ancient Egypt. **216** By Prof. A. Wiedemann, Ph.D. (*The Ancient East*, No. 5.) London: Nutt, 1902. 19 x 13, pp. iv-52. Price 1s.

The hazard of excavation has vouchsafed to us in Egypt, what for Greece and Rome has mainly been denied, a large mass of unclassical texts of very varied interest, which give us a quite exceptional glimpse of the popular thought and daily life of the people; and to this popular literature Dr. Wiedemann has here attempted an introduction. He describes and illustrates, with well-selected

examples, the folk-songs, love-songs, philosophic discussions, fables, tales of travel, ghost stories, and romances of ancient Egypt; and adds a brief list of the published collections of such writings. Of these the best known to English readers are, of course, Petrie's *Egyptian Tales* (1892-93) and Griffith's *Stories of the High Priests of Memphis*; on which, as well as (for classical scholars at all events) on the "Second Book" of Herodotus, this little essay will be found a serviceable commentary. M. L.

China.

Birch.

Travels in North and Central China.

By John Grant Birch. London: Hurst and Blackett, 1902. 22 x 15, pp. xvi-379, illustrated. Price 5s. 6d.

Travels in North and Central China presents the narrative of travel contained in Mr. Birch's diary, somewhat compressed and modified in form, and consists of a popular account of several expeditions from Peking into the interior by land and river. Mr. Birch has shown himself to be a keen observer, but the book will prove of greater interest to the general reader than the anthropologist, for the author had neither the time nor the opportunity to give more than an impressionist view of the Chinese. This defect would possibly have been remedied had the author lived to revise his notes, but on the return from Cheng-tu at the time of the Boxer troubles, Mr. Birch was drowned while descending the Kwang ho on a raft to Ning-hsia, and his companion, Captain Watts-Jones, was barbarously murdered a few weeks afterwards at Kwei-hwa-cheng by the Deputy Prefect. The book is well illustrated from photographs taken by the author. E. F.

West Africa.

Mockler-Ferryman.

British Nigeria. By Lieut.-Colonel

A. F. Mockler-Ferryman, F.R.G.S., F.Z.S. London: Cassell and Co., Ltd., 1902. pp. viii-351, 23 x 16. Price 12s. 6d. net.

In the history of British Nigeria we have a very fine example of the genesis of the British colony. First comes the explorer, then the trader, next the chartered company, and finally the Imperial colony. The author of this interesting work gives us a clear and succinct account of this evolutionary process in the case of British Nigeria, from the discovery of the Niger by Mungo Park, in 1796, to the taking over of the Royal Niger Company and the Niger Coast Protectorate by the Imperial authorities in 1900. The later

stages of this history illustrate the intense competition which now exists among European nations for the acquisition of colonial possessions, and shows clearly that, unless our Government gives better support in the future to the pioneer work of the explorer and trader, the results of their labours will be lost to the British Empire.

The chapters on the population of British Nigeria and their religions and customs will also be read with the greatest interest by the anthropologist and ethnologist. There is, unfortunately, little known of the physical anthropology of the tribes and peoples inhabiting this region, but still a great deal can be guessed from the traditions and histories recorded in this work as to their origin and racial affinities. Apparently the aboriginal inhabitants of the Niger valley were of the pure negro type, but some thousand or more years ago the Berbers or Libyans of North Africa crossed the great desert and invaded Nigeria from the north. We have as a result the Bornu, Borgu, and Fullah kingdoms in northern Nigeria, in which the ruling classes at least are of the Berber type, having skins not darker than the inhabitants of Spain. Then we have the mixture of the Berber and negro in the Hausas, one of the finest races intellectually and morally of West Africa. Finally, we have the pure negro in southern Nigeria in the coast districts. Here, then, we have a fine field for the physical anthropologist, and if a high commissioner should appear who will follow the example of Lord Curzon in India, a vast addition would be made to our knowledge of the human race. J. G.

West Africa.

Hutter.

Wanderungen und Forschungen im Nord-Hinterland von Kamerun. 219

Von Franz Hutter, bayerischer Artillerie-Hauptmann. Braunschweig: Friedrich Vieweg u. Sohn, 1902. Pp. 578. xvi. plates and 115 illustrations in the text, and two maps. Price 14 mk.

This book contains the observations of Captain Hutter made during his service with the Government expedition into German West Africa in the years 1891-1893. The author divides his work into three parts, the first of which is by way of introduction and consists of a very short sketch of the history of this part of Africa. The second, deals generally with trade, the conditions of station-life both on the coast and in the interior, and the organization

and conduct of expeditions. In the third the author presents the results of his researches, geographical, meteorological, and anthropological. The distinguishing characteristics of the book are its method and width of range; the latter is, of course, the result of the former, since it is only by rigid adherence to a methodical system that so much information of so varied a character could have been collected in a period of under three years. Hence the author's remarks on expeditions generally will have great value for the explorer. The anthropological part is divided into two sections dealing with the inhabitants of the open country and of the forests respectively, and the book is so complete that the reader is almost surprised to find that the author has not included the collection of anthropometrical data in his system of enquiry. The illustrations are from sketches by the author and photographs taken by, or with the assistance of, Dr. Zintgraff. The value of the book is further enhanced by side-headings.

T. A. J.

PROCEEDINGS OF SOCIETIES.

London. Anthropological Institute.

Ordinary Meeting, Tuesday, 9th December. Dr. A. C. Haddon, F.R.S., **220** President. The election was announced of the following as ordinary Fellows of the Institute:—Lt. Garbutt, M.A., W. K. Shirley, M.A.

Mr. N. Annandale read a paper on *Some Preliminary Results of an Expedition to the Malay Peninsula*. Messrs. C. Wray and W. Skeat took part in the discussion which followed. The paper will be published in full in *Journ. Anthr. Inst.*, XXXII.

Dr. C. Lumholtz read a paper on *The Symbolism in Art of the Huichol Indians*.

Ordinary Meeting, Tuesday, 13th January. Dr. A. C. Haddon, F.R.S., President. The election was announced of the following as Ordinary Fellows of the Institute:—Mr. W. C. Peele, Rev. R. A. Bullen, and J. O. Borley, M.A. The election was announced of the following as Honorary Fellows of the Institute:—Mr. A. W. Howitt, for distinguished services to the Ethnology of Australia; Dr. von Luschan, for numerous contributions to Ethnology, and Dr. S. Reinach for researches into the early history of Civilization in the Mediterranean and Western Europe.

Dr. C. S. Myers read a paper on *The Future of Anthropometry*. In the discussion

which followed Professor Thomson, Drs. Warren and Garson, and Messrs. Shrubsall, Gray, and Myres took part.

Annual General Meeting, Tuesday, 28th January. Dr. A. C. Haddon, F.R.S., President.

The election was announced of the following as ordinary Fellows of the Institute:—A. Broacha, W. Evans, B. Houghton, and J. Gray. The Reports of Council and Treasurer were presented and adopted.

The Officers and Council were duly elected for the ensuing year.

The outgoing President delivered an address on *Anthropology: Its Position and Needs*. Mr. H. Balfour, M.A., was formally installed as President of the Institute.

The official minutes of the meeting with the Reports and the President's Address will be found in full in *Journ. Anthr. Inst.*, XXXIII. p. 1, et seq.

RECENT PUBLICATIONS.

List of Books and Papers presented to the Library of the Anthropological Institute. **221**

Ethnography and Travels.

- KROEBER, A. L.—The Mrs. Morris K. Jesup Expedition. The Arapaho. Repr. *Amer. Mus. Nat. Hist.*, Vol. XVII., Part II. New York, 1902.
ROSE, H. A.—Punjab and North-West Frontier Province Census Report, Part I. Simla, 1902.
THOMSON, BASIL.—Savage Island. London, 1902.
—The Diversions of a Prime Minister.

London, 1894

- AUDREY, FRANCES.—In the Isles of the Sea: the Story of Fifty Years in Melanesia.

London, 1902.

- BELLINGHAUSEN, F. VON.—Forschungsfahrten im Südlichen Eismeer, 1819-1821: Aus Grund des russischen Originalwerks. Leipzig, 1902.
CHAMBERLAIN, B. H.—Things Japanese: being Hints on Various Subjects connected with Japan for the use of Travellers and Others.*

London, 1902.

- WILLIAMS, THOMAS, and CALVERT, JAMES.—Fiji and the Fijians, and Missionary Labours among the Cannibals.

London, 1870.

- MATTHEWS, W.—Ethnography and Philology of the Hidatsa Indians.

Washington, 1877.

Folklore.

- DIXON, R. B.—The Huntington California Expedition. Maidu Myths. Repr. *Amer. Mus. Nat. Hist.*, Vol. XVII. New York, 1902.
VAUX, Rev. J. E., M.A.—Church Folklore.*

London, 1902.

General.

- NEW ZEALAND Official Year Book, 1902. Wellington, N.Z., 1902.
ZITTEL, KARL VON.—Text-book of Palaeontology, Vol. II.* London, 1902.

Mention in the above list does not preclude from subsequent review in MAN. Publications which have been already reviewed are distinguished by an asterisk (*).

MAN

SUPPLEMENTARY MATTER, 1903.

REVIEWS.

Central America.

Sapper.

Mittel-Amerikanische Reisen und Studien. By Dr. Carl Sapper. Brunswick, 1902. 23 x 15. Pp. 426, with 60 illustrations and 4 maps. Price 10 marks.

222

Das Nördliche Mittel-Amerika. By Dr. Carl Sapper. Brunswick, 1897. 23 x 14. Pp. 436, with 17 illustrations and 8 maps. Price 9 marks.

These two volumes may appropriately be considered beside Dr. Seler's work (*Die Alten Ansiedelungen von Chaculá*, see MAN, 1903.5), with which they are connected from a geographical standpoint, though the subjects and the treatment are very different. Dr. Seler, in short, is the archæologist and savant, Dr. Sapper is the explorer and geographer. During a twelve years' residence in Central America this indefatigable man occupied himself throughout the dry season in travelling over the length and breadth of the country from Anáhuac to Panama, almost always on foot with one or two native porters and with such guides as could be procured. In this adventurous life he acquired much experience and information, which he has here embodied in literary form. The anthropologist has only to regret that ethnography, which occupies so important a place in the earlier volume, is subordinated in the later to the observations on geography, geology, and the economic development of the modern republics.

Taking this first, we remark that *Mittel-Amerikanische Reisen und Studien* contains only one or two chapters which appeal immediately to the anthropologist. They are those which deal respectively with the Payas of Honduras, the rapidly-disappearing Guatusos of Costa Rica, the Chirripós of the same country, and the "Mosquito" and Samo Indians. In the remaining pages there are only incidental allusions to the native tribes. Unfair as it undoubtedly is to reproach the author of an excellent book for not choosing a different subject, we cannot refrain from expressing the hope that the author is only postponing to a more convenient time the full and detailed ethnographical account of these regions. Meanwhile it may be said that his "travels and studies" are calculated to give a very good general idea of the country and of the future prospects of the several states

into which it is divided. The first part (pp. 1-251) is an interesting, if sometimes rather prolix, narrative of some sixteen expeditions in various directions, while the second part contains an admirable review of the economic conditions of Central America with especial reference to its possibilities as a field for commerce and for agriculture. An appendix gives statistics on such subjects as rainfall and climatic conditions, exports, imports, railways, &c. The value of the author's contributions to geographical knowledge will be judged from the four maps which illustrate the comparative levels of the land, the distribution of vegetation, the trade routes, &c.

Das Nördliche Mittel-Amerika, though written partly on the same lines, will probably be a much more attractive book in the eyes of most of those who may read this critique. Here, again, we are given (pp. 1-166) a narrative of several journeys, though Vera-Paz, Guatemala, Peten, Mexico, and Yucatan, and again this is followed by a review of the general condition of the countries in question. But some 200 pages are devoted to ethnography and linguistics, or to observations on the ancient monuments. As the writer visited such little known tribes as the independent Mayas of Central and Eastern Yucatan, and the Lacandónes, he records much that is of absorbing interest. The short account of the Lacandónes describes them as a timid and shy folk, reduced to about 200 or 300 souls. Though spoiled only within the last few years by the introduction of modern implements, they are almost a Stone-Age people. Occupied chiefly in hunting, they use bows and arrows both in fishing and for the chase; the arrows with which they kill the larger game being tipped with chipped flints. Their dress and their implements are described, and a paragraph is devoted to the details of one of their pagan sanctuaries.

An admirable essay describes the religious beliefs of the Kekchi Indians. Even such of their prayers as have an externally Christian character preserve old formulæ identical with those of the Popol-Vuh book. Besides the Christian God, whose power is only recognised as dominant where there are villages or where crosses stand, they worship the sun, and Tzultacca the god of the forest and stream and special patron of hunting. All

three of these deities are equally styled Kacvua ("our lord"). Twelve Kekchi prayers are given in full in the native language with a translation. The burial and marriage customs of the same people are also described, and there are some notes on their harvest rites and on their doctrine of souls. Other chapters deal with the music and the dances of the natives of North Central America, and with native place-names. One contains some good notes on ancient settlements; and an appendix gives a comparative vocabulary of a few common words in twenty-two cognate dialects. The book is completed by maps showing the volcanoes of Guatemala, the distribution of vegetation, the heights of the mountains, the trade routes, and the distribution of languages, of place names, and of ruined cities. D. RANDALL-MACIVER.

Phrenology.

Hollander.

Scientific Phrenology: being a practical Mental Science and Guide to Human Character. An illustrated text-book. By Bernard Hollander, M.D. London: Grant Richards, 1902. 19 x 13. Pp. viii + 307. Price 6s.

After centuries of work and endless speculation no explanation can yet be offered of why one human head is shaped in one way, and another in another. Every anatomist of repute has, in his time, brought all the up-to-date artillery of the day to bear on this outstanding mark of his impotence with, at the most, a minimum of success. The toil of years, as far as it concerns the skull, may be summed up in three short deductions: (1) it is the chamber of the brain; (2) it is the capsule of sense organs—the eye, ear, and nose; (3) it is part of the apparatus of mastication. Since those are its three functions, and, since we know every organ is adapted, more or less perfectly, to the part it plays in life, we may safely infer that its shape is due to the manner in which it performs these functions. But such an inference does not tell you why your head is long and mine is short, or why my brow slants and yours does not.

The only men who have solved the problem of cephalic morphology are the phrenologists. To Dr. Hollander belongs the honour, not only of having solved it to his own satisfaction, as has also been the case with most of his predecessors, but to the almost universal approval of the gentlemen who guide the general public through the lay and medical press, as to the various values of recent literary work. Dr. Hollander stoutly maintains that the brain is the organ of thought; Dr.

Ferrier is quoted to show that the motor functions are localized, and a hundred portraits of famous men are reproduced as evidence that emotional and intellectual functions are also assigned to special parts of the brain. According to the relative size of each localization, varies the shape of the head and the intellectual and emotional ability.

This work can safely be said to be characterised by imagination. On page 5, for instance, are three "diagrammatic representations of the course of the brain fibres radiating from the centre to the circumference," which, were it not for the inscription, one would accept as illustrations from a surgical text-book, showing how bandages should be applied to an injured head. Certain it is that no man or mammal on this planet ever possessed such an arrangement of fibres.

The only explanation of the following passage I can suggest is that Dr. Hollander has not studied anatomy in the human beings of this planet (*see* p. 20):—"The frontal lobes are fed by the internal carotid arteries, the parietal and occipital lobes by the basilar artery, the union of the two vertebral arteries. The inosculation of the circle of Willis I believe to have been overrated. The vaso-motor nerves of these two areas are also differently derived. Those of the posterior area spring from the inferior cervical ganglion, into which run the fibres ascending from the abdomen by the greater splanchnic nerve." All of which would sound to the public, did they know the anatomy of their bodies as intimately as the geography of their country, like a description of the Thames as a river which rose in Kent, flowed past Inverness, and terminated in the Bay of Biscay.

It would be unprofitable to follow the author of this work into an elaborate disquisition on the "quality of the conscious principle," or to criticise his theory of the arrangement of the mental functions in flats within the skull—the highest functions being lodged in the attic and the lowest in the basement or cerebellum. Enough has been said to give an idea of the nature of Dr. Hollander's work. A. KEITH.

Egypt.

Maspero.

Manual of Egyptian Archaeology. By G. Maspero, D.O.L. English translation by Amelia B. Edwards. Fifth edition revised and enlarged by the author. With supplementary chapter by the English editor.

London: Grevel, 1902. 19 x 13. Pp. xxviii + 391; with 336 illustrations in the text.

In spite of the rapid advance of discovery in Egypt, this well-known little handbook still holds its own as a careful and readable summary of the leading features of Egyptian civilisation; and as the fourth issue, published in 1895, was thoroughly remodelled and brought up to date, it is only at a few scattered points that modifications have been required in this fifth edition.

One department of Egyptology, however—the study of pre-dynastic antiquities—which in 1895 was in its infancy, has grown in the interval to such proportions as to demand separate treatment; and though M. Maspero's appointment, in the meanwhile, to be Director-General of the Service of Antiquities in Egypt gives him the best of opportunities for supplying this want, the heavy calls upon his time have made it impossible for him to do so. The editor of the English editions since the death of Miss Edwards—who modestly remains anonymous—has, however, done what is required, and has produced a very serviceable and well illustrated summary of the present state of knowledge of the earliest ages of Egypt; as well as minor appendices on the recent progress of palaeographical science as applied to hieroglyphic script on the Sun-Temple at Abusir, and on the relations between the civilisation of Egypt and that of the Mycenaean world; and these new sections have been submitted to M. Maspero and approved by him. The index also has been revised, and a brief bibliography of the new branches of Egyptology is added.

M. L.

Siberia.

Meakin.

A Ribbon of Iron. By Annette M. B. Meakin. London: Constable, 1901. 225 20 x 13. Pp. 320, with map and 19 photographic plates.

The "Ribbon of Iron" is the Trans-Siberian Railway; and this book is a brightly-written account of the adventures of two English ladies who travelled from St. Petersburg to Yokohama in the spring of 1900. It contains a good deal of information which will still be new to the majority of English readers, some good photographs of Kinghis people, villages, &c., and a brief account of M. Martianof's museum at Minousinsk with a plate showing a series of the remarkable death masks which occur in the early tombs of that neighbourhood. Why "superstition should prevent" black-edged envelopes from

being tampered with in the post, Miss Meakin does not explain (p. 119); but the hint is useful, and not in Siberia alone. "East" and "west" seem to have been confused on p. 225; and on p. 141 either a "hundred" or a "thousand" would be credible, but hardly both.

J. L. M.

Malay Peninsula.

Greentree.

Poems of the Malay Peninsula. By R. Greentree. London: Wellby, 1901. 226 13 x 9. Pp. 126. Price 3s. 6d.

This little book contains nineteen poems, not, as might perhaps be expected from the title, translations of Malay poetry, but, as the author explains, "they are an attempt to bring out the spiritual meaning which is latent in various legends and phases of life, though only dimly perceived, if at all, by the men whose heritage it is to have 'bodied forth' those at dawn and to sustain these at noon." As a preface Mr. Greentree has written an account of the Malay people, in which he analyses the Malay character into three elements, Hinduism, Mohammedanism, and the Mongolian temperament, which, the author holds, have combined to produce the Malay as he is now, an individualist, a phenomenalist, and a materialist. Excellent on some points, Mr. Greentree's analysis is hardly convincing; to describe the popular religion, at least, as materialistic is hardly true in the ordinary sense of the term. It is, perhaps, a pity that Mr. Greentree has not preferred to deal more concretely with the subject, in which case his account would certainly have gained in value from the scientific point of view.

E. N. F.

Sociology.

Kellor.

Experimental Sociology: Descriptive and Analytic: Delinquents. By Frances A. Kellor. New York: The Macmillan Co., 1901. 23 x 13. Pp. xvi + 316. 227

The importance of the study of criminology is self-evident, and the rapidity with which it has advanced in what is, comparatively speaking, but a short period is an indication of the interest which attaches to it. With the object of drawing increased attention to the subject Miss Kellor has given in *Experimental Sociology* a popular account of a series of investigations undertaken by herself in institutions for female criminals in the north and south of the United States of America, in which the anthropometrician,

the psychologist, and the sociologist will alike find matters of the greatest interest. Miss Kellor's methods of investigation have been exceedingly thorough. Her book is divided into three parts—explanatory, descriptive, and analytical. The first, which will prove of greatest interest to the anthropologist, gives the schedules, anthropometric, psychological, and sociological, which have been used, and under each heading of the schedule is included a summary of the results for different classes of criminals, and, under the first two headings, for students, who are here taken as the normal type for purposes of comparison. It is a matter for regret that Miss Kellor has not published her tables, and in the case of the anthropometric data has only given the average measurement or index.

The descriptive part deals with the environment of criminals, the prisons and reformatories of the United States, and their effect on the delinquents, while in the last section of the book Miss Kellor offers such suggestions for reform as have been suggested to her by her investigations.

E. N. F.

PROCEEDINGS OF SOCIETIES.

London. Anthropological Institute.

Ordinary Meeting, Tuesday, 10th February. Mr. H. Balfour, M.A., President, in the chair. **228**

The Assistant Secretary read a paper by Mr. R. Shelford on *Two Medicine Baskets from Sarawak*. The paper was discussed by the President, Dr. Haddon, Messrs. Ray and Wray and will be found in full, and illustrated, in *Journ. Anthr. Inst.*, XXXIII.

The Secretary read a paper by Mr. A. Henry on *The Lolos and Other Tribes of Yunnan*. The paper was discussed by Messrs. Balfour, Myres, and Ray; and will be found in full in *Journ. Anthr. Inst.*, XXXIII.

Ordinary Meeting, Tuesday, 24th February. Mr. H. Balfour, M.A., President, in the chair.

Mr. C. Partridge, jr., F.R.G.S., exhibited bronze bells and other objects from Nigeria.

Mr. R. Swan and Mr. C. Wray exhibited collections of stone implements from Perak.

Mr. C. Wray exhibited also a collection of silversmith's work, from the Malay Peninsula.

Ordinary Meeting, Tuesday, 10th March. Dr. J. G. Garson in the chair.

The election was announced of Miss J. L. Myres as a Fellow of the Institute.

Dr. W. Wright read a paper on *Skulls from the Danes' Graves near Driffield, Yorkshire*, which was illustrated by lantern slides, and discussed by Professor Thane, Mr. Atkinson, Mr. Shrub-sall, Mr. Shirley, and Dr. Garson.

Dr. W. Wright also described a *Method to facilitate the Recognition of the different Types of Skulls described by Sergi*. The paper was discussed by Professor Thane, Mr. Shrub-sall, Mr. Gray, Mr. Myres, and Dr. Garson. Dr. Wright replied.

RECENT PUBLICATIONS.

List of Books and Papers presented to the Library of the Anthropological Institute. **229**

Method, &c.

LUSCHAN, F. VON.—*Vorschläge zur Geographischen Nomenklatur der Südsee*. Berlin, 1900.

Anthropography.

SPITZKA, E. A.—*Contributions to the Encephalic Anatomy of the Races*. Repr. Amer. J. Anat. Vol. II., 1. New York, 1903.

MORRELL, Prof. E.—*Il Precursore del Uomo (Pithecanthropus)*. Geneva, 1901.

LUSCHAN, F. VON.—*Siebzehn Schädel aus Chaculá in Guatemala*. Berlin, 1902.

—*Zwölf Schädel von den Mentawai-Inseln*. Berlin, 1902.

Archæology (European).

BROWN, J. ALLEN.—*Recent Discoveries in Relation to Pre-historic Man in Ealing*. London, 1902.

BURNARD, R.—*The Disappearing Stone Monuments of Dartmoor*. Repr. Trans. Devon. Assoc. Adv. Sci., 1902. Plymouth, 1902.

GARDNER, E. A.—*Ancient Athens*. London, 1903.

VASSITS, Dr. M. M.—*Die Neolithische Station Jablanica bei Medjulužje in Serbien*. Brunswick, 1902.

ZABOROWSKI, S.—*L'homme préhistorique*. Paris, 1902.

Archæology (non-European).

HALL, R. N.—*Great Zimbabwe, the Hill or Acropolis Ruins*. South Africa, Vol. LVII. No. 738. London, 1903.

LUSCHAN, F. VON.—*Prähistorische Bronzen aus Kleinasien*. Repr. Globus, LXXXI., 19. Brunswick, 1902.

—*Ausgrabungen in Sendschirli*. Berlin, 1902.

Demography.

BECK, C. V.; IMBRY, F.; GRAF VON SCHWEINITZ.—*Deutschland und Seine Ko'onten im Jahre 1896*. Berlin, 1897.

REPORT to the Secretary of Scotland by the Crofters' Commission, on the Social Condition of the People of Lewis in 1901, as compared with Twenty Years ago. Glasgow, 1902.

Mention in the above list does not preclude from subsequent review in MAN. Publications which have been already reviewed are distinguished by an asterisk ().*

M A N

SUPPLEMENTARY MATTER, 1903.

REVIEWS.

Cuneiform.

Booth.

The Discovery and Decipherment of the Trilingual Cuneiform Inscriptions. By **230**
A. J. Booth. London, 1902. 23 x 14 cm.
Pp. xvii + 459, with a plan. Price 14s.

The above work contains a very full and careful account of this subject. It may be doubted whether the author was well advised in confining himself, rather arbitrarily as it seems to us, to these inscriptions, instead of embracing the whole of cuneiform decipherment. The story has already been often told, e.g., briefly by Delitzsch in his *Assyrian Grammar*, and at greater length by Rogers in his *History of Babylonia and Assyria* (the first 253 pages), so that the work, to be final, ought to be complete in this respect. It is inevitable that an account of opinions, theories and literary controversies should involve a large amount of repetition. This is increased by the method of arrangement. We have (counting the introduction), nearly a hundred pages before coming to Grotefend. The introduction gives a general summary, chapters I and II. give an account of the various travellers who have visited the scenes and written of them; from 1472 till the present day. Then follows in the remaining four chapters a detailed history of the decipherment of each of the three languages separately. As some of the scholars were concerned with all three decipherments, the result of this arrangement is rather confusing, and the historical sequence is disturbed. Much of the work on the three columns went on concurrently, discoveries in one helping discoveries in another, and this would have been brought out more clearly if the work could have been condensed. However, we set out to bless and are far from wishing to do otherwise. Anyone who has studied the subject will find the book not only interesting but valuable as a work of reference to the chief publications of earlier scholars. So far as we have tested them, the historical statements are accurate and the large mass of information is made more accessible by a good index. Incidentally many points are touched upon which do not strictly concern the Achæmenians, e.g., the decipherment of Vannic. This makes us the more regret that only passing allusions are made to the great

Sumerian controversy, which, it might be considered, lies at the root of the whole system. While quite ready to agree with Mr. Booth as to the fact of a Sumerian language and civilisation, we feel that it cannot be assumed as indisputable so long as a scholar like M. Halévy maintains the contrary. Similarly with regard to the second column (formerly called Median, now generally Susian) we have a long account of various views on its affinities, but lack a decisive summary of the present opinions. Mr. Booth holds that "its affinity to the Altaic branch of the Turanian family is now admitted," but does not give the grounds for this belief. The latest authority, Weisbach (1890) considers that certain comparisons with Sumerian are "nicht kurzerhand zurückzuweisen," while others rest on false readings or errors of some kind. He hints at a relation with the Finno-Tataric languages, but feels justified in leaving to the future any decision as to its nearer affinities within that group. We confess to finding great difficulty, up to the present, in substantiating more than an occasional, distant, and very general resemblance to either Finnish or Turkish, and even that may be merely accidental.

At the end are three comparative tables of the values assigned to the characters of the Old Persian and Susian characters, with the author and date of decipherment. The compilation of these, as indeed of the whole work, must have cost great labour. Besides its interest and usefulness, the story is instructive as showing how slowly, though surely, the results were established, how it is not the fortune of every man to be a decipherer, and how no linguistic problem ought to be pronounced insoluble.

A. C.

Italy.

Bioknell.

The Prehistoric Rock Engravings in the Italian Maritime Alps. By C. Bioknell. Bordighera: Gibelli, 1902. 27 x 19 cm.
Pp. 74, with map and 24 plates.

The weird glaciated valleys which encircle the base of Monte Bego, "The Righi of the Maritime Alps," as it is called—have long been famous for the strange figures of men, animals, weapons, and the like, which are to be seen rudely roughed out by hammering on the smooth rock surfaces with which these valleys

are lined. These figures were described by an Italian, P. Gioffredo, as early as 1650, and again, in 1821, in Fodéré's *Voyage aux Alpes Maritimes*; but it was not till 1868 that an English visitor, Mr. Moggridge, called scientific attention to these "marvels." Since that date, however, the literature of the *meraviglie* has multiplied rapidly, new sites and countless new examples have been discovered, and the widening interest which is evinced in the origins of sculpture and of writing has led to copious speculation as to their date and meaning. Mr. Bicknell himself has contributed important papers in 1897 and 1899 to the *Attila Società Linguistica*, &c., of Genoa, and Professor Issel a general review of the question to the *Bullettino di Paleologia Italiana* of 1901 (vol. xxvii.); and the present memoir is an attempt to present the whole history of the discovery in detail, and to focus the present state of our knowledge.

The *meraviglie* themselves may be classified as follows:—(1) Weapons and implements, some of rather elaborate forms; (2) horned animals, mostly drawn as if seen from above—a photograph of oxen ploughing, taken from a similar point of view, makes this interpretation certain—some with multiple or fantastic horns, some grouped, some single, some yoked to ploughs, harrows, and perhaps to rude sledges or carts; (3) men guiding the oxen or the ploughs, or brandishing weapons or ensigns; (4) various roughly rectangular figures, some of which seem to be enclosures, often subdivided internally or filled with small indeterminate objects, others to be the extended skins of slain animals, plain, fringed, or ornamented; (5) other geometrical figures, including circles, simple or concentric, wheel-like devices, and rarely spirals. Some of the figures seem to form more or less elaborate groups; others, obviously independent in design, crowd closely on their neighbours apparently for want of space; and others are clearly unfinished. The size varies from one to three or four feet in diameter, and Plate XII. gives an actual heel-ball rubbing from a detached fragment preserved in the museum of Bordighera.

Their age cannot be ascertained with certainty. Vague local traditions assign them to "the Saracens" or to "Hannibal;" antiquaries have cut the knot by referring them cheerfully to "the Phœnicians;" more recent investigators, including Mr. Bicknell himself, argue, it would appear conclusively, for a very much earlier date. To infer, however, that the authors of the *meraviglie* were

"of African origin," because similar sculptures have been found in the Valley of Sous in Morocco would seem to be premature.

The purpose of the representations is not clear. These upland valleys can never have been grazing-grounds on a great scale; nor, in really early phases of culture, does the herdsman anticipate Giotto in sketching his charges. Emblems of votive or propitiatory sacrifice they well may be, for the weather-fiend still haunts Monte Bego, and more than one recent explorer has been exposed to the local violence of its thunderstorms. And if, finally, the *meraviglie* are to be regarded as registers either of events or compacts, as is by no means impossible, they would seem, as Mr. Evans has pointed out, to add yet one more piece of evidence to those which would suggest a very high antiquity for representative, if not for signficatory, art in peninsular Europe.

J. L. MYRES.

Sociology.

Nieboer.

Slavery as an Industrial System. Ethnological Researches. By Dr. H. J. Nieboer. The Hague: Martinus Nijhoff, 1900. Pp. xxvii + 474. 21 x 15 cm.

This excellent book is an exhaustive discussion of one branch of a great subject. It will be observed from the title that it treats of slavery from the industrial point of view and by ethnological methods. To show how large a field the author has left untilld, he furnishes in a final chapter the outlines of a further investigation of the early history of slavery—the different ways in which people become slaves and cease to be slaves, the treatment of slaves by their masters, their legal status, the attitude of public opinion towards them, the different kinds of slaves, slave labour, serfdom, the number of slaves, their happiness or unhappiness, the consequences of slavery and the development of slavery—all of which we may hope that he will be moved to treat upon in as skilful and scientific a manner as he has dealt with the industrial element of slavery in the present work. The book is divided into two parts, descriptive and theoretical, and the first part into two chapters: 1, the definition of slavery and its distinction from kindred phenomena, such as the subordination of wives, children, subjects, labourers, and serfs; and, 2, the geographical distribution of slavery. Dr. Nieboer accepts, as a sufficient definition, that slavery is the fact that one man is the property or possession of another, but to distinguish it from the subjection which is associated with the rela-

tion of wife or child adds the words "beyond the limits of the family proper." He would even reject the words "or possession" as they are merely synonymous with property, which is the better term, since it implies a recognition by the community of the right to possession. The geographical distribution of slavery is deduced from a study of the testimonies of ethnographers which, to the extent that we have been able to test it, is as nearly as possible absolutely complete, and involves in each case statements not merely of what the observer said, but an enquiry as to what he really meant, and what authority he had for saying it. How nearly complete may be inferred from the fact that the list of authorities at the end contains about 700 entries. This critical enquiry into the value of his materials, the author rightly holds to be necessary; and he criticises Letourneau for having neglected it in his "Évolution de l'Esclavage." We do not wholly agree with him in his disparaging estimate of the value of M. Letourneau's work, and we cannot mention the name of the late distinguished general secretary of the Society of Anthropology of Paris without an expression of our sense of the loss which anthropological science, as well as all his colleagues and friends in England and in France, has sustained by his death.

In stating the results of the ethnological testimony, Dr. Nieboer adopts the plan introduced by Professor Tylor, in his memorable paper on the method of investigating the development of institutions read before the Anthropological Institute, and is thereby enabled to test the validity of the theoretical conclusions arrived at in the second part of his work. Thus among hunting and fishing tribes, he finds 65 negative cases as against 18 positive, showing that this economic state is unfavourable to the development of slavery, but not exclusive of it. Among pastoral tribes the positive and negative cases are equal, so that it is wrong to hold that the taming of animals naturally leads to the taming of men. Among agricultural tribes, 133 keep slaves, but 86 do not; and those which do are those in which agriculture is the more developed. Upon the indications afforded by an analysis of the facts from which these general results are deduced, Dr. Nieboer builds up in a very masterly way a series of inferences as to the causes, internal and external, which contribute to the existence or non-existence of slavery as an industrial system.

E. W. B.

British Columbia.

Herring.

Among the People of British Columbia: Red, White, Yellow, and Brown. **233**

By Frances E. Herring. London: Fisher Unwin, 1903. 20 x 13, pp. xvi + 299. Price 6s.

Among the People of British Columbia is a book to which it would be difficult to assign a definite title; it could hardly be called a novel, although it consists of fictitious incidents which, as the author explains in her preface, are founded on fact. It describes the social and domestic life, the public festivities, and the industries of British Columbia, while the very thin thread of a love story runs through to give coherency to the whole. Mrs. Herring's account of the Indians who are to be met in and about the towns is coloured by a somewhat exaggerated admiration, and she gives few indications of the deteriorating effect that civilisation has had upon them.

E. N. F.

America: Folklore.

Mooney.

Myths of the Cherokee. By James Mooney. From the 19th annual report of the Bureau of American Ethnology. Washington, 1902. Pp. 596, with 20 plates and two figures in the text. 29 x 19 cm. **234**

This bulky volume is only an instalment of the work of Mr. James Mooney, whose aim and intention are to produce a complete monograph on the Cherokee Indians. About a third of it is occupied by a history of the nation, in which the author delivers a plain unvarnished tale of perfidy, cruelty, and rapacity on the part of the white men and the governments of their states. It is said that even now the bulk of the Cherokee nation contemplates withdrawal into Mexico, the Federal Government being apparently incapable, though not unwilling, to protect them. For some generations the leaders of the Cherokees, generally men of high character and intelligence, have for the most part been of mixed blood; and during a large portion of the 19th century they followed almost implicitly the lead of a worthy American of Welsh descent, Colonel W. Thomas.

The myths and stories in this volume have mostly been collected among the remnant of the Cherokees, who, having escaped expatriation, still remain in parts of their ancient patrimony, among the mountains of Western North Carolina. Naturally enough, the old traditions and customs are best preserved in the old country. I have not space to say much about them. The myths are animistic.

in-character, and some of them still influence conduct. Thus the Cherokee is loth to kill a wolf or a rattlesnake; and he asks pardon of a bear or a deer before or after killing the animal. There is a tradition of a deluge or great flood, apparently quite independent of missionary teaching, and there are quite a number of dragon legends, in some of which the "Uktena" is merely described as an enormous snake, with a bright blazing crest like a diamond and glittering scales; but in others it is distinctly indicated that it had feet at each end of its body, and moved by strides or jerks "like a measuring worm."

The rabbit enjoys pretty nearly the same position in Cherokee stories that he does in those of the Negroes in the southern states. As nearly the same may be said respecting many other Amerindian tribes, and as there has been constant and intimate intercourse between many such tribes and the Negroes ever since the first introduction of the latter into America, it seems probable that the Brer Rabbit class of stories originated among the former. The author gives reasons for thinking that there is a considerable strain of Indian blood among the coloured people of the south.

JOHN BEDDOE.

PROCEEDINGS OF SOCIETIES.

London. Anthropological Institute.

Ordinary Meeting, Tuesday, 28th April. 235
Mr. H. Balfour, President, in the chair.

The elections were announced of M. Edmond Doutté, Mr. C. W. Partridge, jr., M.A., F.R.G.S., and Mr. E. N. Fallaize, B.A., as Ordinary Fellows of the Institute.

The President exhibited a number of glass spear heads made by the aborigines of North-West Australia, together with the implements used in their manufacture (see MAN, 1903. 35).

Mr. E. N. Fallaize, B.A., read a paper on *The Classification of the Materials of Anthropology*, which was discussed by Dr. Garson, Messrs. Shrubsall, Hutchinson, Lewis, Gray, and the President. The paper will appear in MAN.

Mr. J. Gray, B.Sc., read a paper on *The Measurements of the Colonial Coronation Contingent*, which was discussed by Dr. Garson, Mr. Shrubsall, and the President. The paper will appear in MAN.

Ordinary Meeting, Tuesday, 5th May. Mr. H. Balfour, President, in the chair.

The elections were announced of Dr. Karl Pearson, F.R.S., Mr. W. M. Strong, M.A., B.C., and Captain S. L. Cummins, M.A.,

R.A.M.C., as Ordinary Fellows of the Institute.

The President exhibited a stone celt, worn as an amulet, from Benin; some silver *ex voto* offerings from Malabar; and a dagger from Siam, on the sheath of which were natural markings interpreted by the natives to represent the name of Allah. The exhibit was discussed by Mr. Walhouse and Mr. Visick.

Mr. A. L. Lewis, F.C.A., Treasurer, read a paper on *Stone Circles in Derbyshire*, which was discussed by Dr. Garson, Mr. R. A. Smith, and the President.

Mr. A. L. Lewis also read a paper on *Some notes on Orientation*, which was discussed by the President and Mr. R. A. Smith (see MAN, 1903. 48).

Ordinary Meeting, Tuesday, 19th May. Mr. H. Balfour, President, in the chair.

Mr. M. Longworth Dames exhibited a collection of antiquities from the North-West Frontier of India.

The exhibit was discussed by Sir T. H. Holdich and Mr. C. H. Read.

Mr. C. H. Read read a paper by Mr. T. H. Lyle on *Ancient Pottery Kilns at Sawankalok, Siam*. The paper was discussed by Sir T. H. Holdich and the President.

RECENT PUBLICATIONS.

List of Books and Papers presented to the Library of the Anthropological Institute. 236

Ethnography and Travels.

ANNANDALE, N. and ROBINSON, H. C.—Fasciculi Malayenses: Anthropology, Part I.

London, 1903.

BOAS, F.—Tsimshian Texts. Bull. 27, Bureau Amer. Ethnol. Washington, 1902.

CENSUS OF NEW ZEALAND.—Registrar-General's Report. Wellington, N.Z., 1902.

FORREST, G. W.—Cities of India. London, 1903.

HERRING, F. E.—Among the People of British Columbia: Red, White, and Brown. [An imaginative story with much local colour.] * London, 1903.

HUGHES-BULLER, R.—Census of India, 1901. Baluchistan. Volumes V. and VI. Parts 1-3.

Bombay, 1902.

KLOSS, C. BODEN.—In the Andamans and Nicobars. London, 1903.

KOLLMAN, J.—Die Pygmäen und ihre systematische Stellung innerhalb des Menschengeschlechts. Repr. Verhandlungen der Naturforschenden Gesellschaft in Basel. Bd. XVI. pp. 85-117. Basel, 1902.

LUMHOLTZ, KARL.—Unknown Mexico (2 vols.). London, 1902.

Mention in the above list does not preclude from subsequent review in MAN. Publications which have been already reviewed are distinguished by an asterisk (*).

M A N

SUPPLEMENTARY MATTER, 1903.

REVIEWS.

Mexico:

Physical Characters of Indians of Southern Mexico. By Frederick Starr. **237**
Chicago University Press, 1902. 30 x 21 cm.
Pp. 59, with 60 illustrations and 32 tables,
reprinted from the Decennial Publications,
Vol. IV., pp. 53-109.

Starr.

This is the all too brief epitome of anthropological researches among twenty-three tribes living in the states of Mexico, Michoacan, Puebla, Tlaxcala, Vera Cruz, Oaxaca, Chiapas, and Yucatan. The author had been impressed with the fact that there are differences in the racial type of the various Mexican peoples, no less noteworthy than the acknowledged differences presented by their art and their languages. He therefore planned a complete investigation of their physical characteristics, relying mainly upon three methods of study, viz., measurements, photographs, and plaster mouldings. The fourteen measurements prescribed by Dr. Franz Boas were taken on one hundred men and twenty-five women of each tribe. Types were selected for photography, and of the 600 negatives obtained a large number have already been reproduced in the author's *Indians of Southern Mexico: an Ethnographic Album*. Busts were made for every tribe, and the final series of one hundred is stated to include from two to five subjects out of each. Four sets of these busts have been run, and it is intended to distribute them to as many different countries, in which distribution we hope that Great Britain will not be forgotten.

This offprint from the Decennial Publications of the University of Chicago conveys a clear impression of the author's elaborate study, which is, however, far too valuable to be confined within such narrow limits. It can hardly be doubted that the University of Chicago or some other scientific body will realise the clear duty of publishing the entire mass of material in the completest possible form. In the meanwhile students will be grateful for the present paper, which contains thirty double portraits beautifully reproduced as half-tone engravings, together with tables giving the mean, the maximum, and the minimum for each series of measurements. The letterpress consists of a short characterisation of the type presented by

each tribe, based partly upon the results of the measurements and partly upon ocular observations.

Only one point challenges adverse criticism, and that is Professor Starr's comparative neglect of his opportunities to observe the women. A series of one hundred examples such as those which he obtained for the men of each tribe is genuinely valuable, but a series of twenty-five women is only a few degrees better than nothing. The supposed justification of his attitude is given by the author's statement that "Characters of race are better marked in men than in women." That is a statement which the present writer believes that he will not be alone in questioning. It is, unfortunately, impossible in many countries to obtain measurements or photographs of the women, but whenever the opportunity occurs they should be observed with at least as much care and attention as the men.

D. RANDALL-MACIVER.

Method.

Galton.

Life-History Album of —. Second **238**
edition rearranged by Francis Galton,
D.C.L., F.R.S. London: Macmillan and Co.,
Limited. 1902. 25 x 17 cm. Price 5s.

This is a collection of schedules and charts for recording the life-history of persons from birth to death. One album is devoted to the records of one individual. The first schedule is for recording the characteristics of relatives, their birthplace, age at death, cause of death and minor ailments. Other schedules are provided for entering every year the life-history and medical history, and a limited number of anthropometric observations on the subject himself. At the end of the volume are charts on which curves may be drawn showing variations of weight and stature. The anthropometric observations relate to colour of hair and eyes, weight and stature, tests of sight, hearing, smell, taste and touch, and certain marked physical and mental capacities.

It would have been desirable to provide for a larger number of anthropometric observations, but, no doubt, Mr. Galton has been deterred from introducing these into his schedules by the well-known difficulty of getting accurate measurements from persons

who have not been specially trained. These albums should supply parents with the means of recording a series of interesting characteristics about their children, who may in many cases continue the records through life. The data thus slowly acquired would, in coming ages, supply the anthropologist with invaluable data bearing on the interesting question of heredity. The medical data would also be of great value in enabling the individual to take precautions to prevent diseases to which he had inherited a tendency from his ancestors. It is to be hoped that Mr. Galton's album will be extensively used.

J. G.

Semitic.

Barton.

A Sketch of Semitic Origins, Social and Religious. By Professor G. A. Barton. **239**
London and New York: Macmillan, 1902.
23 x 15 cm. Pp. xiii + 342. 12s. 6d.

Professor Barton's work deals with a subject that owes its inception to Robertson Smith, whose well-known theory of Semitic totemism is here worked out at length with special reference to the evidence from Assyria and Babylonia. The book is particularly welcome as a testimony of the increased attention which is deservedly being paid to Semitic anthropology and sociology, and, in this connection, it is not out of place to draw attention to *Primitive Semitic Religion of To-day*, a valuable collection of evidence from first-hand sources recently published by another American scholar, Professor S. I. Curtiss. Professor Barton's attitude may be illustrated by his statement that "matriarchates and polyandry have been developed 'in many parts of the world, but nowhere on 'such a gigantic scale as among the Semites' (p. 322). The exaggeration that marks this conclusion of his does not stand alone, and it requires much straining of the (scanty) evidence to justify his attempt to prove that the Yahweh of the Israelites was a development of the mother-goddess Ištar-Ashtoreth. A certain looseness in the use of such terms as totem and totemism is also noticeable, and it does not appear that the writer considered the present position of our knowledge of totemism before he sought to find survivals of it among the Semites. But, when this has been said, Professor Barton's book remains a careful study of Semitic life and thought in general, and there is not a page that does not show signs of careful reading and digesting. For the material it contains it is the most helpful and suggestive work of recent years;

and, however much one may dispute the theories which he has endeavoured to prove, no student of comparative religion can afford to ignore it, or will turn to it without pleasure and profit.

S. A. C.

Sociology.

Du Bois.

The Negro Common School: a Social Study made under the direction of Atlanta University by the Sixth Atlanta Conference. Edited by W. E. Burghardt Du Bois. Atlanta University Publications, No. 6, 1901. 23 x 15 c.m. Pp. 120. Price 25 cents.

The Negro Artisan: a Social Study. Edited by W. E. Burghardt Du Bois. Atlanta University Publications, No. 7, 1902. 23 x 15 c.m. Pp. 192. Price 50 cents.

These volumes, ably edited by Mr. W. E. B. Du Bois, are two of a series of publications, issued from time to time by the *Atlanta University Press*, of which each deals with the investigation of some particular aspect of the problem of the negro population in the United States, endeavouring to analyse and dissect the evils which are brought to light by the investigation, and to trace them as far as possible to their ultimate causes, and, finally, indicating lines of reform.

To do justice to the two numbers of the series now under review would require far more space than is at our command. They offer a complete summary in a condensed form of the life and opportunities of the majority of the negro population, and the merest outline must suffice. *The Negro Common School* is based not only on Government returns, but also on material gathered by the circulation of schedules of questions in schools and training colleges, covering all matters connected with the numbers of children educated, methods of, and facilities for, education, duration of the educational period and the like; in the case of teachers the amount of training received, status, single or married, age, &c. The same method is followed in *The Negro Artisan*, the schedules in this case having been circulated among technical schools and colleges, employers of labour, trade unions, &c. The information gathered is, obviously, of a very varied character, and the manner in which it has been sifted and classified under headings reflects the greatest credit on the editor. Mr. Du Bois, who is by no means blind to the faults of his race, sums up the results of the investigation with admirable impartiality.

These investigations will prove valuable to all sociologists whose interests are directed towards problems of racial contact. They

should be of particular interest to us, who, in all probability at no very remote date, will be confronted with a problem in South Africa differing in degree only, and not in kind, from that in America. E. N. F.

South America.

Prichard.

Through the Heart of Patagonia. By Hesketh Prichard. London: Heinemann, 1902. 346 pp., with numerous illustrations. 28 x 18 cm. Price 21s.

The author was sent out in charge of an expedition despatched in 1900 by Mr. Pearson, proprietor of the *Daily Express*, to ascertain whether the *Mylodon* still survived in the mountainous regions of Patagonia. The immediate object of the journey was not attained, for no traces of the giant sloth were discovered; but as a secondary result we have this very readable account of Patagonian travel, which is especially strong in description of the fauna of the country, the illustrations of animals and birds being in many cases reproduced from Mr. J. G. Millais' admirable sketches. For the ethnologist the chief interest of the book centres in the remarks upon the Tehuelche, the nomadic Indian population of the Pampas, of whom several good photographs are given. The Tehuelche have rapidly decreased in numbers since the time of Musters, and now only five of their camps remain in Patagonia. In spite of the encroachments of civilisation they still live their old life of equestrian hunters of the guanaco, still use the bolas, and still skin their game with flint implements. They preserve many of their ancient customs intact, flattening the skulls of infants at the back, and putting a new-born boy inside the body of a newly-slain mare in order to make him a good horseman in after life. The author regrets, and there are many who think with him, that a race gifted with so many fine qualities of mind and body should be doomed to rapid extinction. The volume is provided with several maps and an index, and the illustrations are excellent.

M.

Method.

Fürst.

Index-Tabellen zum anthropometrischen Gebrauche; herausgegeben. Von Professor Carl M. Fürst. Jena: Verlag von Gustav Fischer, 1902.

This very complete set of tables, for calculating all the usual indices made use of by anthropometricians, was prepared by Professor Fürst when engaged with Gustav

Retzius in working up the statistics of the great anthropometric survey which they had carried out in Sweden. The previous tables prepared by Welcker, being only for cranial indices, were quite inadequate for calculating the large number of additional indices that have in recent times been introduced by craniologists. Broca's tables were more complete, but they have long been out of print. The present tables are even more complete than Broca's, and are very conveniently arranged. There are 29 different tables, giving the values of all ratios as percentages, included between the limits 1-200
1-225

There are still a large number of anthropologists who believe in the fundamental value of indices as a characteristic of race, and such will find these tables invaluable.

J. G.

PROCEEDINGS OF SOCIETIES.

London. Anthropological Institute.

Ordinary Meeting, Tuesday, 9th June.

Mr. H. Balfour, President, in the chair. 243

The elections were announced of Mr. R. C. J. Swinhoe and Mr. G. Hampton as ordinary Fellows of the Institute.

Mr. A. Keith, M.D., communicated a paper on *Chilian Anthropology*, by Mr. R. T. Latham. The paper was discussed by Colonel Sir T. Holdich, the President, Dr. Keith, and Miss Meakin, and will be found in Vol. XXXIII. of the *Journal of the Anthropological Institute*.

Professor Arthur Thomson, M.A., M.B., read a paper on *The Causes which Operate to produce the various Types of Human Skull*, illustrated by an exhibition of models and lantern slides. The paper was discussed by Dr. A. Keith, Dr. R. Munro, Professor Thane, Professor Paterson, Dr. Garson, Mr. J. Gray, Dr. Wright, and Dr. Barker Smith, and will be found, illustrated, in Vol. XXXIII. of the *Journal of the Anthropological Institute*.

Summer Excursion to Silchester: Saturday, 18th July.

After visiting the Silchester Collection at the Reading Museum, the Fellows of the Institute and their guests proceeded to the excavations, where they were met by Mr. Mill Stephenson, B.A., F.S.A., who kindly conducted them over the site, pointing out the chief objects of interest, including the work then in progress.

At lunch a vote of thanks to Mr. Stephenson was proposed by the Treasurer.

RECENT PUBLICATIONS.

List of Books and Papers presented to the
Library of the Anthropological Institute. **244**

Physical Anthropology.

- GODIN, PAUL.—Recherches Anthropométriques sur la croissance des diverses parties du corps. *Paris*, 1903.
MANOUVRIER, L.—Aperçu de Céphalométrie Anthropologique. Repr. *L'Année Psychologique*.
— Généralités sur l'Anthropométrie. Repr. *Revue de l'École d'Anthropologie*. Vol. XII, Dec. 1900. *Paris*, 1900.
TURNER, Sir W., K.C.B., F.R.S.—A Contribution to the Craniology of the People of Scotland. Part I. Repr. *Trans. Roy. Soc., Edinburgh*, Vol. 40, pt. 3.* *Edinburgh*, 1903.

Archæology (European).

- BARING GOULD, Rev. S.—Eighth Report of the Dartmoor Exploration Committee. 1903.
IRELAND, A. J.—Stonehenge: The Story of its Building and its Legends.* *London*, 1903.
WARD, J., F.S.A.—The Roman Fort of Gellygaer, Glamorgan. Vol. XXXV., *Trans. Cardiff Naturalists' Soc.** *London*, 1903.
WEBSTER, A. D.—Greenwich Park; Its History and Associations. *Greenwich*, 1903.

Archæology (non-European).

- HALL, R. N.—Great Zimbabwe, the Hill or Acropolis Ruins. (Articles 2 and 3.) *South Africa*, Vol. LVII., Nos. 739 and 740. *London*, 1903.

Ethnography and Travels.

- LUSCHAN, F. VON.—Beitrag zur Kenntniss der Tittowirung in Samoa. *Berlin*, 1897.
— E. Parkinson's Beobachtungen auf Bóolo und Hún (Matty und Durour). Repr. *Globus*, XVIII., 5. *Brunswick*, 1900.
MICHELIS, E. DE.—L'Origine degli Indo-Europei. *Paria*, 1903.
NADAILHAC, MARQUIS DE.—Du Cap au Caire. Repr. *Le Correspondant*. *Paris*, 1903.
NORDENSKJÖLD, E.—Præcolumbische Wohn- und Begräbnisplätze an der Süd-Westgrenze von Chaco. Band 36, No. 7. *Kongl. Svenska Vetenskaps-Akademiens Handlingar*. *Stockholm*, 1903.
PRICHARD, H. HESKETH.—Through the Heart of Patagonia.* *London*, 1903.
POOLE, S. LANE.—Mediæval India, under Mahomedan Rule, A.D. 712-1764.* *London*, 1903.
REPORT on the Caribs of Dominica, No. 21. *London*, 1902.
REPORTS of Cambridge Anthropological Expedition to the Torres Strait, Vol. II., Part II. *Cambridge*, 1903.
REPORT (38th) of the Board for the Protection of the Aborigines. *Melbourne*, 1902.
REPORT of the Director of the Rijks Ethnographisch Museum te Liden. *'S Gravenage*, 1903.
REPORT, 19th Annual, Bureau of American Ethnology, parts 1 and 2. *Washington*, 1900.
REUSCHEL, KARL.—Völkenskundliche Streifzüge. *Leipzig*, 1903.
ROTH, W. E.—Food: Its Search, Capture and Preparation. *North Queensland Ethnography*, Bull. 3.* *Brisbane*, 1901.

ROTH, Games, Sports, and Amusements. *North Queensland Ethnography*, Bull. 4. *Brisbane*, 1902.

- String and other forms of Strand, Basketry, Woven Bag and Network. *North Queensland Ethnography*, Bull. 1. *Brisbane*, 1901.
— The Structure of the Koko Yuindir Language. *North Queensland Ethnography*, Bull. 2. *Brisbane*, 1901.
SCHMELTZ, J. D. E.—Verzamelingen Aanwezig in's Rijks Ethnographisch Museum, etc., etc. *Leiden*, 1902.
THOMPSON, A. H.—Ethnographic Odontology: The Inca-Peruvians. Repr. *Dental Digest*, Jan. 1903. 1903.

Folklore.

- ASTLEY, REV. H. J. D.—Tree and Pillar Worship. Repr. *Trans. Roy. Soc. Literature*, Vol. XXIV. *London*, n.d.
BOGORAS, W.—The Folklore of North-Eastern Asia as compared with that of North-Western America. Repr. *Amer. Anthropologist*, Vol. 4, 1902. *New York*, 1902.
GREENTREE, R. B. A.—Poems of the Malay Peninsula; with an Introductory Essay on the Malay People.* *London*, 1901.
MOONEY, J.—Myths of the Cherokee. Repr. 19th Annual Report Bureau of Ethnology.* *Washington*, 1902.
SAKHOKIA, TH.—Les Proverbes Géorgiens. Repr. *Revue des Traditions Populaires*. *Paris*, 1903.
WEULE, D. KARL.—Völkerrunde und Urgeschichte im 20 Jahrhundert. *Leipzig*, 1902.

General.

- BURY, J.—An Inaugural Lecture.* *Cambridge*, 1903.
LOVETT, R.—James Chalmers, his Autobiography and Letters. New edition. *London*, 1903.

Method.

- GALTON, F., D.C.L., F.R.S.—The Life-History Album of—.* *London*, 1902.

Pathology.

- MOTT, F. W.—Archives of Neurology. The Pathological Laboratory, London County Asylums, Claybury, Vol. II. *London*, 1903.

Sociology.

- BATES, D.—The Law of Likeness. *London*, 1903.
LANG, A., ATKINSON, J. J.—Social Origins, Primal Law.* *London*, 1903.
WARD, L. F.—Pure Sociology: A Treatise on the Origin and Spontaneous Development of Society. *New York*, 1903.

Mention in the above list does not preclude from subsequent review in MAN. Publications which have been already reviewed are distinguished by an asterisk (*).

Khotan: Exhibition.

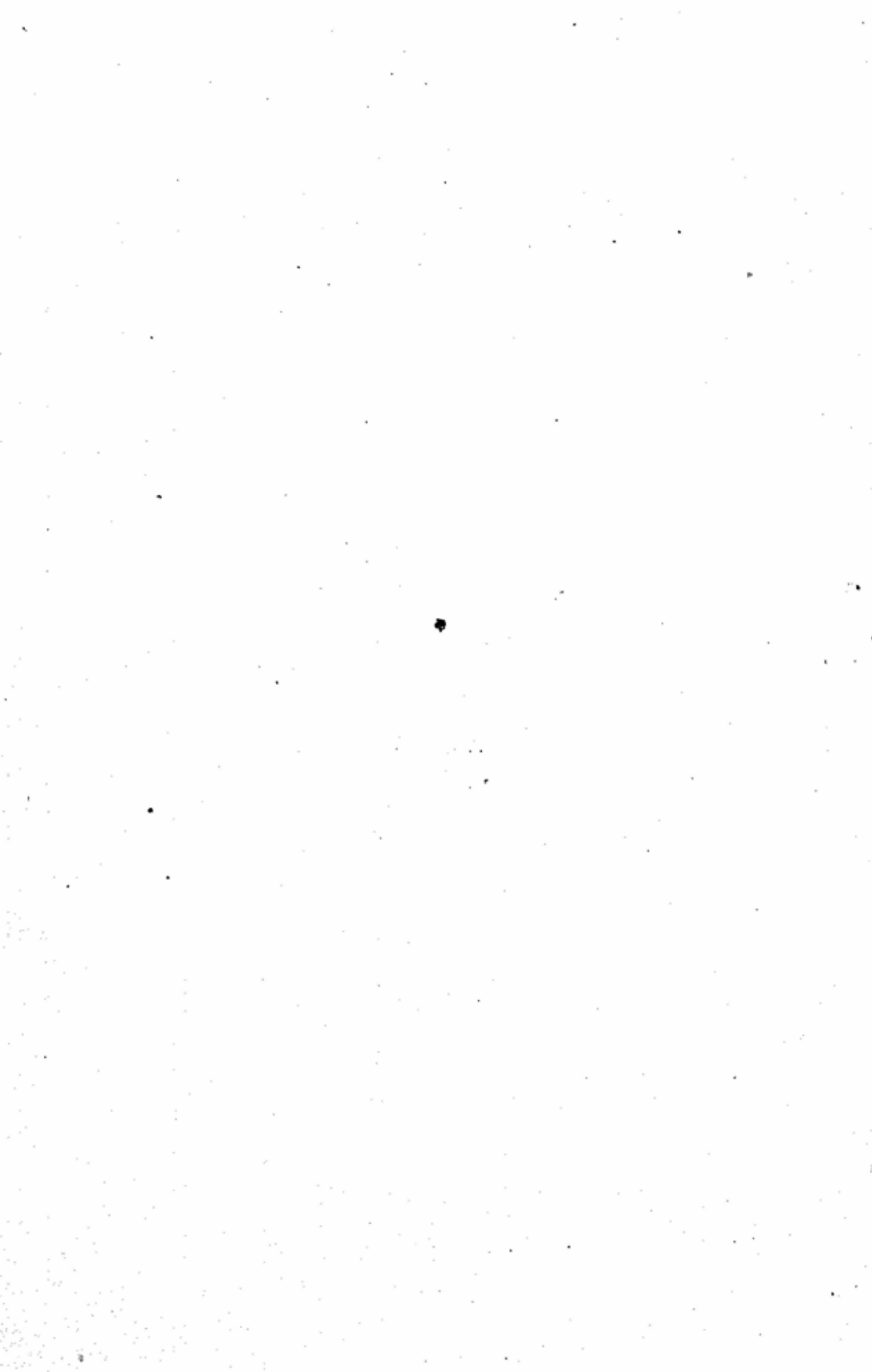
Stein.

Indian Government Excavations.

A selection of the objects, including 245 frescoes, terra-cottas, documents, &c., excavated in the oasis of Khotan and the Takla-mahan desert, Central Asia, are now on exhibition in the Asiatic Saloon at the British Museum.







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