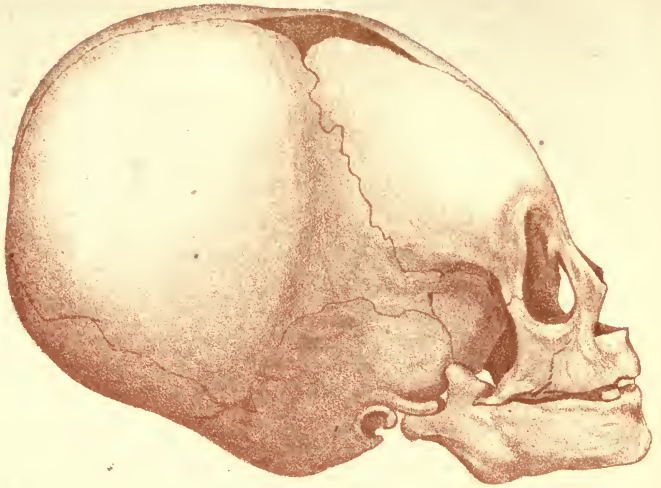




1



2



3



antennis atris, thorace fere hexagono angulis anticis rotundatis, posticis abrupte truncatis, disco subconvexo punctato, lateribus parum depressis et marginatis, elytris sulcato-punctatis, quatuor maculis rubro-miniatis insignitis corpore pedibusque nigris.

The above insect was lately received from the Ashantee country, and was sent to me by Capt. Parry of Cheltenham for description.

From the number of rare species already described, some faint idea may be formed of the richness of African entomology. I regret to add that several others of equal rarity are passed by, as being too mutilated for description. Various new types of form have also lately reached me from the country of the Ashantees as well as the Gold Coast; the most remarkable of them at a future time I propose to publish.

August 25, 1842.

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XVI.—*A brief Account of two Peruvian Mummies in the Museum of the Devon and Cornwall Natural History Society.*  
By P. F. BELLAMY, Surgeon, of Plymouth\*.

[With a Plate.]

THESE interesting relics were brought to England by Captain Blanckley of the Royal Navy, who in the year 1838 presented them to the Society under the incorrect denomination of Peruvian Mummies. Of the exact locality whence they were procured I am at present unable to furnish information; but on presenting them, Capt. Blanckley stated to me in conversation, that he exhumed them himself from an elevated tract of land in the mountainous district of Peru, but at a considerable distance from the lake Titicaca. He also informed me that such remains were very abundant there, that they were found very near the surface, the light sandy soil having been removed by the wind, so as to expose many of them (a circumstance which led to their discovery), and that each was observed to have an upright posture in the soil, and to have under it a piece of matting†.

Each mummy (for so, in order to avoid a confusion of terms, I will continue to call them,) presented the appearance of a rudely shaped oval bundle, secured by numerous lashings of a coarse rope, made of a kind of flag or rush, passed two or three

\* Read to the Zoological Section of the British Association, Aug. 3, 1841.

† One of the specimens was packed in a tin case with some of the sand taken from the spot; it is impregnated with marine salts to such an extent as to impart to the whole a strong smell somewhat resembling iodine; so that there is reason to believe that the preservation of the remains is accidental, and principally attributable to the presence of these extraneous anti-putrescents.

times round the neck, and then in a variety of directions over the trunk, and knotted together at each intersection so as to form a network with broad interspaces; every part but the head being thus firmly compressed. The first and principal envelope proved to be an article of dress, made of a scarlet-coloured stout cloth, consisting of a single piece, sewn together up the sides, and with a hole for the head and each arm; thus resembling a loose frock without sleeves, and not much unlike a ponsha or mantle. The one preserved is of capacious size, and was no doubt at one time worn by an adult, perhaps the father of the deceased. As a wrapper for the dead, a portion of it was drawn smooth over the head and face, then allowed to fall in large irregular folds over the body, and the superfluous portion folded up at the feet. The second and innermost envelope consisted in one of a thin coarse cotton, and in the other of a piece of woollen cloth wrapped rudely round the body, but, like the former, drawn smooth over the head and face. Between the two wrappers were found the model of a raft or catamaran, two small bags made of a neatly striped cloth, filled with ears of an undescribed variety of Indian corn, and two small earthen pots, one of which probably at the time of deposit contained a little water, and the other it is not unlikely was intended for a cooking utensil. Such were the models found in conjunction with these remains; but with others which Captain Blanckley examined on the spot, they were of various descriptions, and the earthen vessels of different patterns: thus we have presented by him three flat dishes or baskets of neat wicker-work; a fishing line with a float made of reeds matted together, and with a small black oval-shaped pebble for a weight; a very rudely made fishing basket; the half of a small gourd, probably intended for a lamp; and as many as nine sorts of earthen vessels, some of which are neatly painted.

Here we may remark, that two of the pots and two of the bags contain leaves of one of the *Musaceæ*; and that in two or three others Capt. Blanckley found a quantity of a blackish powder, and lying loosely not far from one of the mummies he presented, a piece of sugar-cane about 18 inches long.

By a coincidence, the mummies under our immediate notice are the remains of children, one of which was not more than a few months old, and the other could not be much more than one year; and judging from their relative size and figure, male and female. Pl. IV. figs. 1 and 3.

Of the first examined all the soft parts had mouldered into dust, and nothing but the bones and a small portion of hair remained. In the other the skin was hard and shriveled, the

hair black and silky, but both much discoloured by the putrefactive process, and the soft tissues melted down to a brown-coloured unctuous kind of matter, by which means the face was so distorted that not a feature was discoverable. This one however displayed the manner in which the body was arranged for interment.

The principal object appears to have been to give to it a sitting or crouching attitude; for this purpose the thighs were pressed up against the abdomen and the legs flexed upon them, and then secured by a bandage made to encircle the trunk and the bent limbs two or three times. In addition to this, the arms were brought across the body and tied together at the wrists by a piece of cord, and the head was pressed down upon the chest so as to throw the occiput uppermost.

From each mummy I selected the bones of the skull, and by a little mechanical contrivance restored them to their natural position.

On examining these skulls it will be found that the face is short and projecting, the chin square and protruding, the malar bones large and prominent, the nostrils large and open, the orbits large and squared, and the orbital margins thick and rounded; but the crania, from the singularity of their form, deserve the most marked attention: the frontal bone is narrow, recedes at once from the superciliary ridges, and presents a flattened aspect as far as the coronal suture; the parietal bones rise for about two-thirds of their length till they reach the vertex, at which point they suddenly round off to form the occiput; and the occipital bone, which is irregularly flattened, forms principally the under part of the skull, only a small portion of it occupying the back of the head, and that being turned up rather suddenly to meet the parietal bones. Thus it will be observed that the whole skull is thrown back, has a remarkably large posterior development, and is of an ovoid form, with its long axis from before to behind.

Corresponding with this configuration, all the large bones of the skull are considerably elongated; and this will be better displayed by contrasting them with those of an infant of the Caucasian variety, whose cranium is of the ordinary globular figure; thus the frontal bone, measured from its junction with the nasal to its line of junction with the parietal, is in the Caucasian 4 inches, in the Peruvian  $4\frac{1}{2}$  inches; the parietal, from the extremity of the angle in the temporal fossa to the postero-superior angle in the Caucasian, is  $5\frac{1}{2}$  inches, whilst in the Peruvian it is  $6\frac{1}{4}$  inches; and the occipital, from its junction with the sphenoid to the apex of the lambdoidal suture in the Caucasian, measures 5 inches; and in the Peruvian  $5\frac{3}{4}$

inches. In making these measurements I have chosen the skull of the elder mummy, because its form is not so exaggerated as in the younger, in which the bones, from the greater projection of the occiput, are comparatively longer.

It will also be found, that even if the circumference of the two skulls be the same by measurement in a transverse direction over the vertex from one occipital condyle to the other, the Peruvian through its long axis is  $5\frac{3}{4}$  inches, whilst that of the Caucasian is but  $4\frac{3}{4}$  inches. The position of the foramen magnum too is remarkable, for it will be found to be considerably anterior to the centre of gravity; thus, from the centre of the condyle of the occipital bone to the alveoli of the front incisors, the distance is but 3 inches, whilst from the same point to the line described by the greatest posterior projection it is  $3\frac{5}{8}$  inches; nor is the facial angle less remarkable: in one it does not exceed  $85^\circ$ , and in the other it is as little as  $82^\circ$ ; being in the former  $5^\circ$ , and in the latter  $8^\circ$  less than in the Caucasian of the same age.

Here I will venture to call the attention of the Section to the formation of the occipital bone, for in each skull the same peculiarity exists; that is, in the addition of a fifth rudimentary portion of the same figure, and occupying the same position in both, viz. between the occipital portion of the bone commonly so called, and the parietal bones, but below the lambdoidal suture; in this particular differing essentially from the adventitious os triquetrum sometimes found. In the younger of the two individuals it is, like the other rudiments, distinct and separate (Pl. IV. fig. 2.); whilst in the elder, in which the ossific process is more advanced, the junction of it with the occipital portion is nearly complete, the suture only remaining open at either extremity for little more than an inch, but traceable through its entire length. Does this exist by a strange coincidence as an anomaly of structure, or is it to be considered as a normal formation peculiar to this race of beings?

It will be manifest from the general contour of these skulls that they are allied to those in the Museum of the College of Surgeons in London, denominated Titicacans. Those adult skulls are very generally considered to be distorted by the effects of pressure; but in opposition to this opinion Dr. Graves has stated\*, that "a careful examination of them has convinced him that their peculiar shape cannot be owing to artificial pressure;" and to corroborate this view, we may remark that the peculiarities are as great in the child as in the adult, and indeed more in the younger than in the elder

\* Dublin Journal of Med. and Chem. Sciences, No. 15.

of the two specimens now produced : and the position is considerably strengthened by the great relative length of the large bones of the cranium ; by the direction of the plane of the occipital bone, which is not forced upwards, but occupies a place in the under part of the skull ; by the further absence of marks of pressure, there being no elevation of the vertex nor projection of either side ; and by the fact of there being no instrument nor mechanical contrivance suited to produce such an alteration of form (as these skulls present) found in connexion with them\*.

The remarkably flattened forehead, indicative of the very small size of the anterior lobes of the brain, is worthy of remark ; and it will be for phrenologists to reconcile this fact with those now recorded, which bespeak for this people a tolerably advanced state of civilization : they were manufacturers and agriculturists ; bestowed their dead with peculiar care, paying particular attention to their imaginary wants, and had certain superstitious notions connected with their departure to some distant region. Are these marks of intellect the result of original powers of invention, or are they the result of intercourse with other and more civilized people ?

This peculiar race were in all probability the aborigines of the country ; and it is possible that these mummies may be the relics of some of the last of the Titicacans, deposited after the invasion of the country by those enlightened conquerors, who subdued them, not by the sword, but by moral agencies, and imparted to them a knowledge of their arts and rites and superstitions. But it will be for the ethnologist to show how far the facts now stated are found to accord with the manners, customs and attainments of eastern nations ; and to say to what people the first emigrants to this part of the western shores of America belonged. Failing in this however, it will, I think, be fair to attribute to the indigenæ a mental capacity equal to originate such inventions, and to arrive at such attainments as the specimens before us manifest.

It is probable that the extinction of this once typical variety of the human family was produced gradually by an intermixture of blood with those who afterwards became the lords of the soil, and whose line of princes, untainted by such intercourse, formed the Incas dynasty so remarkable in the history of Peru.

Lastly, I would suggest that the adult skulls of Titicacans before alluded to are of two kinds, the one possessing all the peculiarities of the race in its unalloyed form—the true Titicacan ; and the other being of a spurious character, resulting

\* See the note at the end of this communication.

from the union of the indigenæ with the settlers of Asiatic origin, the companions of Manco Capac of traditionary fame. Accordingly in the former we observe the receding forehead, the elongated cranium, and the horizontally-placed occipital bone; and in the latter a modified form, in which, combined with the receding forehead and elongated cranium, there is an elevated vertex and flattened occiput, formed principally by an altered position of the occipital bone; which, instead of lying on a plane with the horizon, rises in a sloping direction upwards and backwards to meet the parietal bones.

*Note.*—After the reading of this paper, Prof. Owen stated that he entertained an opinion that their peculiar form was given to them by pressure, such as might be applied by a bandage passed round the head; and he suggested that a short fillet (about 16 inches long) found with the younger of the two mummies might have been employed for this purpose. This bandage, however, I consider was used to secure the lower extremities to the trunk, and on consideration I am disposed to maintain the same opinion as I have stated above: 1st, because this fillet is but  $1\frac{1}{2}$  inch wide, whereas the flattened portion of the skull is more than 3 inches, extending over the os frontis from immediately above the superciliary ridges to an inch beyond the coronal suture, so as to involve the anterior portion of the parietal bones; 2nd, the line of depression in these skulls has a direction over the middle of the os occipitis, and then over the anterior third of the parietal bones, first where the angle dips down between the frontal temporal bones, and then immediately behind the coronal suture, and not at all over the os frontis; 3rd, because, if pressure had been used in this direction, it would have contracted the great fontanelle, of which there is no mark whatever; indeed in the elder of the two, in which the depressed line is most visible, the fontanelle is most open; and lastly, if a circular bandage had been applied, it would have given a circular form to that portion at least compressed by it; whereas however a transverse section, taken by measurement, shows that the skulls have a compressed pyriform figure, the larger extremity representing the flattened and upper surface, and the smaller corresponding with the contracted aspect of the occipital bone.

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XVII.—*On the characters of the British Violets.* By CHARLES C. BABINGTON, M.A., F.L.S., F.G.S., &c.

[With a Plate.]

THE remarkable difference which exists between the value of characters in different orders of plants, and sometimes even in genera,—the form or structure of any particular organ being of generic value in one order, specific in another, and sometimes not even sufficiently constant to distinguish varieties in a third,—must always give considerable interest to an investi-