

natural features, we cannot fail to perceive, in the elongated skulls from Titicaca, that that peculiar kind of deformation has arisen from a desire to add to the attractive features of the peculiarly elongated form of skull, of which several instances are presented in the present collection.

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The Director read the following paper :

On ANCIENT PERUVIAN SKULLS [*with plate IX*]. By J. BARNARD DAVIS, M.D., F.R.S., V.P. Anthropological Institute.

PROFESSOR AGASSIZ during his late travels went to Callao, in Peru, and when there he received great attention from Her Britannic Majesty's Consul, Mr. Thomas J. Hutchinson. Mr. Hutchinson made a fine collection of skulls of the ancient Peruvians, and other antiquities from the Peruvian cemeteries during the stay of Professor Agassiz, and presented the whole collection of three hundred and eighty-four skulls and other articles of pottery, etc., to him for the museum at Cambridge, in the United States. I send a copy of the letter of Professor Agassiz, who states the great value of the collection, and expresses his warm thanks for it.

Another fine collection of Peruvian skulls has been sent to the Anthropological Institute by Consul Hutchinson, which I am informed is being exhibited. I have no doubt it will attract much attention, and will receive considerable elucidation from the observations of craniologists present, particularly from the President. At the request of Consul Hutchinson, I have forwarded a number of articles of Peruvian pottery obtained from the cemeteries, to be exhibited at the same time.

It will not be necessary for me to say anything of consequence respecting the skulls, as this will be done more accurately and more copiously by very competent gentlemen, I have no doubt. I will merely refer to one point, *i. e.*, the so-called *long* skulls of the ancient Peruvians, which was treated more at length in the "Thesaurus Craniorum", p. 246. It is there stated that Professor Morton, the distinguished American craniologist, in the early period of his researches, considered that there were both natural dolichocephalic and brachycephalic crania among those obtained from the Peruvian cemeteries. He subsequently saw his mistake, and perceived that the longer examples had obtained this character merely from the interference of art. A more recent investigator, Dr. Daniel Wilson, of Toronto, who has acquired a deservedly high reputation in various pursuits, both scientific and literary, has also devoted much attention to craniology. Having the opportunity of ex-

aming many collections of Peruvian skulls, particularly that made by Mr. J. H. Blake, now at Boston, in Massachusetts, he has revived the former opinion of Morton.

Dr. Wilson expresses his conclusion upon the subject emphatically in these words: "It is not at all necessary for the confirmation of the opinion reasserted here, that there are two essentially different types of Peruvian crania, to affirm that the form of the elongated skull never owes any of its peculiarities to artificial compression."\*

The view thus taken by Dr. Wilson, which is that the dolichocephalic Peruvian skulls are of natural form, was combated in the "Thesaurus Craniorum." Since that book was printed, I have received ample and perfectly satisfactory evidence as to the truth of the proposition that the longer skulls owe this quality to artificial means. By the politeness of Dr. J. Aitken Meigs, of Philadelphia, I have obtained two Peruvian skulls, which at one period belonged to Dr. Morton's collection, as a specimen of each kind. One of these is brachycephalic, the other is dolichocephalic; but they both present distinct traces of artificial distortion. This fact is conclusive, but, besides, by the politeness of another eminent American man of science, Dr. Jeffry Wymann, professor of anatomy at Harvard University, this conclusion has been again and still more distinctly established, by an examination of Mr. Blake's collection itself, whence chiefly Dr. Wilson obtained materials for the foundation of his opinion. Dr. Wymann has been so good as to examine Mr. Blake's collection with its present owner, Dr. Warren, of Boston, and wrote me the result on the very day of his visit. I may here introduce an extract from Professor Wymann's letter:

"The upshot of the whole is, the crania do not confirm Dr. Wilson's statement. One of Dr. Wilson's points, in fact it is his chief point, is that the skulls are natural because they are symmetrical, and that it is next to impossible that a distorted skull should be other than unsymmetrical. I have carefully examined eight elongated Peruvian crania with reference to this point, and find that they are quite as symmetrical as any ordinary crania, in fact, neither Dr. Warren nor myself could detect any asymmetry in the general outlines. The mode of employing pressure by bandages would indeed be likely to produce symmetry. Curiously enough, it so happens that the skull represented in fig. 59 of Dr. Wilson's work is the only one in which asymmetry was detected, and in this the most prominent part of the occiput projects farther on the left than on the right side."

This fig. 59 is given in Dr. Wilson's book as a *natural doli-*

\* "Prehistoric Man," 2nd edition, p. 449.

chocephalic skull; but I informed him, on the publication of the work, that it had obviously been distorted by art. Dr. Wymann goes on to say: "Both Dr. Warren and myself were agreed on this point. In addition, this cranium as well as that of the child (figs. 60 and 61) in Dr. Wilson's book, presented the usual appearances seen in artificially distorted crania, particularly in the contraction of the circumference of the cranium between the middle and hinder portions. It seems to me, therefore, that the criticisms of Dr. Wilson's statements in the 'Thesaurus Craniorum', p. 246, are quite correct. I cannot conceive his having arrived at the views he sets forth, and it is rather odd that the skull he has chosen to exemplify his views, should be the one, out of the whole, showing (from his own stand-point) the incorrectness of them."

I do not doubt that the extensive collection of skulls sent by my friend Consul Hutchinson, will afford ample and conclusive evidence upon the questions here discussed.

I may then at once revert to the Peruvian pottery which I have sent for exhibition on the present occasion. Upon this I shall say very little, scarcely more than give a catalogue of the specimens exhibited. It will be understood that this pottery is derived from the same tombs, or *huacas*, in which the skulls were met with. It was the practice of the ancient Peruvians to inter with the dead a great variety of objects. Some were of gold and silver, various implements, some of them of other metals, some of textile materials, and a vast diversity of pottery. From this fact, of the interment of such numbers of articles with the dead, it may be inferred with much probability that the Peruvians were not without some hope of a life beyond the tomb. The pottery indicates considerable skill and ingenuity in its execution, for they did not possess the famous and ancient "potter's wheel", a simple machine above their powers of invention. It is all made by hand, and there is no doubt that, like the pottery of the ancient Britons, it was by the labour of the women's delicate fingers that it was produced. It may be noted that none of the Peruvian pottery is thoroughly baked, so as to fuse the body and to render it very hard. On the contrary, it is more like *terra cotta* than anything else, yet it is baked somewhat more thoroughly than *terra cotta* usually is. A large number of the specimens, indeed the majority, exhibit imitations, more or less successful, of animal forms, sometimes of vegetable forms; the large majority typify the human form. It also occasionally occurs that the forms of the vessels have a grotesque character, and at times give expression to the humour of the people who made them. Skill and taste have been abundantly displayed in the modelling of the almost endless designs of these vessels. Much of the pottery

is of a black colour, from a metallic oxide introduced into the clay; other vessels are made of lighter coloured clays, and all are ornamented in many peculiar styles. Some ornaments, which have been regarded as of classical origin, may at times be found upon Peruvian pottery, such as the *fret* and *scroll*, which were not unknown to the Greeks. These and other accidental coincidences have been employed by some as arguments to support the delusive notion that the Peruvians were of European origin. This kind of erroneous deduction from coincidences has been widely employed in the philosophy of anthropologists, who explain things upon hypothesis. Sometimes it has betrayed even eminent men. I remember being astonished some years ago, to find the very distinguished and accomplished Councillor Thomsen, the founder of the grand Ethnological Museum at Copenhagen, to take this view. Looking at some of the beautiful feather helmets with crests in the museum, made in the Sandwich Islands, he told me that these very helmets proved that the Greeks had had communication with these Islands, for here we saw the Greek crested helmet. A common decoration in Peruvian pottery is produced by placing small grotesque animals in different positions on the vessels. The chief use of most of these curiously formed vessels is considered to have been for holding and for carrying water. As they have handles, they are *water vessels*, articles of vast importance in a climate like that of Peru. From their porous nature they would keep the water cool. A hint has been thrown out that some of them may also have been employed for sipping an infusion of that great exhilarator, the coca (*Erythroxylon coca*), through a silver tube. This is the mode of sipping the *Maté*, or Paraguay tea, but whether the coca be taken in the same way is rather uncertain.

The specimens sent for exhibition are: vessels in *black ware*.

No. 1. An amphora, with two ears or handles. This closely resembles the amphoræ of the Greeks and Romans. It has been elaborated with great care. The marks of the tool are seen all over its surface.

No. 2. A curious water vessel modelled in the exact form of a gourd, with all its natural prominences. Upon one side is modelled the bust of a woman to form the orifice, with her arms and pendent breasts. Her face, with the ears, eyes, nose, lips, and teeth, are all expressed. In the ears are large ear-rings. The head has been modelled as a separate piece, and been attached to the vase afterwards. The potter's finger marks are seen in this attachment. I believe the gourd is a cast from a clay mould taken from a natural specimen, as there is an appearance of a seam along the middle of the bottom. The woman's head is broad, and brachycephalic according to nature. The nose is de-

pressed, like that of a negro, and the hair is represented in tufts; neither of which is correct to nature, but more for the convenience of the potter. This vase is an admirable piece of pottery. The marks of the modelling tool are very obvious on the neck, but totally absent from the gourd, or cast part, which, in fact, supports the view that the gourd is made from a mould.

No. 3. Water vessel, which has a double tube rising up from the belly to join in a single one for the mouth. This combination of the tubes forms a handle. It is neatly decorated on the sides of the upper part with four grotesque birds, having long bills. The depressed field upon which the birds are placed appears to have been formed by an impression.

No. 4. Another handsome water vessel with the double tube for a handle, resulting in the single mouth. This vase is neatly ornamented with three oval prominences, like olives, conjoined by a cord on each side, each of the series of three being equally conjoined by the cord. On the outer sides at the angles at which the tubes rise, a small bird is attached, and a minute monkey at the angle at which the single tube rises. From the marks of seams at the sides, it is probable that the body of this vessel has been made in two halves.

No. 5. Another water vessel, in the form of a depressed globe, which has a prominent spout like that of some teapots. On the opposite side is a grotesque seated figure, having a square head, a prominent nose of a *natural American form*, and a large beard, holding a cup upon his knees. A flat handle is formed conjoining the back of the figure with the spout. [See plate ix, fig. 1].

No. 6. A small *whistling vase*, formed of the body of a bird with long beak. There is a small hole above the bird's head to produce the sound. Wings and feathers are modelled on the sides of the vase.

No. 7. A small cylindrical vase, or urn, with a row of indented ornamentation near the top. This vessel closely resembles some of the ancient British urns. The marks of the tool upon it fully indicate the patient labour by which this pottery has been produced.

No. 8. A vase formed of three conjoined almost cylindrical bodies, which are surmounted by a tube on each side, running into the terminal spout. There is a very minute bird perched at one of the angles of the tubing.

#### *Red Pottery.*

No. 9. A semi-conical water vessel, with a double tubular handle on one side, ending in a tubular mouth. The flat side of the vessel is elaborately decorated with the squat figure of a man standing, holding two long objects in his outstretched arms. This man is a grotesque, has long canine teeth like the tusks of a boar,

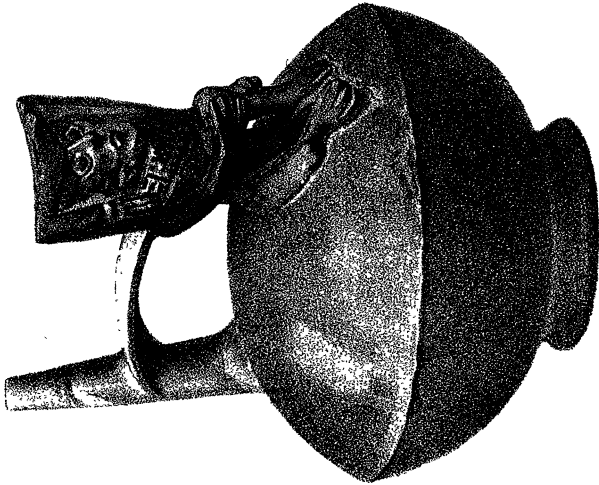


Fig. 1.



Fig. 2.

a singular helmet on his head, on the front of which is an animal's face, a cravat round his neck with bands falling down before. This may be intended for a Peruvian deity. The whole is coloured black and white in contrasts. There is a dog-tooth border to this sculpture, which terminates in a grinning head at each extremity.

No. 10. Another depressed cylindrical vase, with a teapot spout. A bird has balanced the spout at the opposite end of the handle. This vase is decorated with red lines, having scroll ornaments between them.

No. 11. A vessel much like a bag. Has two ears, and the neck is ornamented with an animal having four feet and a tail. This vessel is decorated by lines running lengthwise, between which are placed wavy lines. It has been coloured white, the decoration being dark red, almost black.

No. 12. Another bag-like vessel, or jug, ornamented at the neck with portions of a man's head. The ears, eyes, nose, and mouth stand out, and the two hands project from the side of the jug. The nose is *natural*, or truly American.

No. 13. A small neat vessel, in shape resembling the body of a squat man with his hands on his knees. He is dressed in a tunic, which is fastened by two strings upon his breast. The wide spout is placed at the back of the head. The head is modelled with great accuracy, and exactly presents the American nose. The vessel may be regarded as exhibiting the model of an ancient Peruvian. [See plate ix, fig. 2].

No. 14. Two minute vases, forming almost a pair, ornamented with black upon white ground, and having ears at the necks.

No. 15. A neat shallow vessel, which is ornamented outside with black in diamonds upon the red ware, and then white lines between. It has a row of three lines, two black and a white line between, inside the neck. Ornamented outside the rim also. This vessel is remarkable from being made of a red pottery, which has numerous minute particles of gold interspersed in it.

No. 16. Another small discoidal vessel, ornamented in a very similar diapered manner. It has, besides, the fret pattern on the extreme circumference. These two vessels are decorated with much elegance.

No. 17. A painted water vessel with handle much fractured. It is a red body painted white at the upper part, and birds drawn upon it in a brown colour.

No. 18. A hemispherical cup.

Anthropologically considered, this exhibition of specimens of ceramic art proves incontestably that the Peruvian potters worked from nature from the Peruvian people themselves, a people who possessed brachycephalic, broad heads, well exemplified in No.

13, and had a nose which occurs only in its pure form as a race characteristic in America, but upon that continent ranges from a high north latitude down to Peru, if not further south. Since I first observed this peculiar nose, I have long been accustomed to regard it as the true *aboriginal American nose*, which may require a word of explanation. It is an aquiline nose which distinctly differs from the Roman nose, as well as from that of the Jew. It is at once appreciated by the eye, but perhaps is not so easy to describe in words. No one has depicted it so well as Catlin, who spent so many years of his life in delineating the Indians of America. I possess a large work executed in pencil by his own hand, in which he has drawn facsimiles of all his paintings, and this peculiar nose is represented in the men and the women also of all the tribes. It is, as it were, a crescentic nose, beginning to curve at the upper part, and curved uniformly, or nearly so, to the tip. It is a decidedly handsome feature, of which the native races of America have reason to be proud.

This exhibition also throws much light upon the state of civilization of the ancient Peruvians. It shows that although they were highly advanced in many arts, as weaving, dyeing, metallurgy and the ceramic, in which they had acquired a knowledge of moulding, casting and producing a very permanent pottery, ornamented with taste in numerous ways, yet they knew nothing of one of the simplest and earliest inventions of man, the potter's wheel. This fact proves conclusively, as far as any negative can do, that they were an aboriginal people, whose industry was not derived from any people of the old world, but was strictly native and indigenous. Nevertheless, their skill and their taste were unquestionably highly cultivated. We have likewise obtained evidence of a sufficiently satisfactory character, that their aspirations were not bounded by the horizon of this sublunary world, but extended beyond the tomb. This evidence assuredly is most interesting to us as fellow mortals, and engages our sympathies infinitely more than all besides.

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The following paper was read by the author :

*On the PERUVIAN POTTERY sent by CONSUL HUTCHINSON.* By JOHN E. PRICE, F.S.A.

WITHIN the last few days I have had the opportunity of inspecting the interesting collection of human skulls, pottery, and other relics; sent over from Peru by Consul Hutchinson to the Museum of the Institute. It is fortunate for us, that the description of this marvellous series has fallen to the able hands of our esteemed President and Dr. Barnard Davis, whose collective labours will