

## SCIENCE:

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## THE DE LAINCEL FUND FOR THE STUDY OF THE MAYA LANGUAGE AND ITS GRAPHIC SYSTEM.

BY WM. M. AUGNEY.

THE de Laincel Fund, so-named, after a relative, by a gentleman of Philadelphia, now residing in Mexico, who contributes handsomely to its support, has for its object a thorough study of the graphic system of the ancient Mayas, by collecting vocabularies of that language and its dialects, and obtaining reliable artistic reproductions, by means of photographs, of the ancient cities and mural inscriptions of Central America, also photographing and copying ancient manuscripts or other material which will be of service to students in this special field of research.

The work will be carried on under the direction of an advisory committee, to be chosen from among ethnologists who are authorities upon, and students of, the Maya language, its paleography and art.

The exploration of the fund will be carried on under the direction of Dr. Hilborne T. Cresson of Philadelphia, well known as an ethnologist in America and Europe. The result of his researches have at times been published by the Peabody Museum, where for the past five years he has been a special assistant, working under the direction of Professor F. W. Putnam of Harvard University. Dr. Cresson's artistic training at the Ecole des Beaux Arts, in the ateliers of the sculptor Alexander Dumont, and the painter J. Leon Gerome (his works having been exposed in the Salon of 1877), joined to that of an accomplished French and Spanish scholar, especially capacitates him for this line of research. He has also for some years past been studying the Maya language under the direction of so distinguished an authority as Professor Daniel G. Brinton, and a good basis has thus been obtained for future research.

The de Laincel Fund will act in conjunction with some of our leading American institutions, yet to be determined upon, or independently, as its patron may deem best. The work will be carried on during the healthy season in the south, adopting the plan already pursued by other exploring

parties—that of carrying out its investigations during those months which are best suited to the sanitary condition of its workers.

Secretary's office, 519 Spruce Street, Philadelphia, June 27.

## CURRENT NOTES ON ANTHROPOLOGY. — IX.

[Edited by D. G. Brinton, M.D., LL.D.]

## The Peruvian Languages

Now that the great work of Dr. E. W. Middendorf on the Peruvian languages has been brought to a conclusion by the publication of the sixth and last volume, that on the Muchik (or Chimu or Yunca) tongue, the high value of this contribution to American ethnology should be urged on the scientific world.

Dr. Middendorf is a medical man who practised his profession many years ago in various parts of Peru, making a study of the native dialects his favorite recreation. He thus became practically familiar with them as living tongues, and backed up that knowledge by an acquaintance with such literature as they possessed. The results of this long devotion are now before us in six large octavo volumes, published by Brockhaus, Leipzig, and counting up in all to nearly 2,400 pages of handsomely printed material. The languages considered are the Kechua, the Aymara, and the Chimu, with an appendix on the Chibcha. There is an ample supply of grammatical analyses, texts, phrases, and, of the Kechua, a copious Kechua-German-Spanish dictionary. That the Aymara and Chimu vocabularies are not arranged alphabetically must be regarded as a blemish. One of the volumes contains the original text and a German translation of the drama of Ollanta, believed by many to be a genuine specimen of a native, pre-Columbian, dramatic production. There are also many songs and specimens of prose writings in the same tongue. Taking Middendorf's practical observations along with Tschudi's "Organismus der Kechua Sprache," the student will find himself well equipped to master this interesting idiom.

## The Orientation of Primitive Structures.

The study of the relative directions which the walls and angles of ancient structures bear to the cardinal points has scarcely yet received the attention from archæologists which it merits.

Several varieties of this "orientation," as it is termed, are to be found, each with its own meaning. The ancient Egyptian *mastabas* and pyramids have their sides facing the cardinal points. This arose from the desire of having the door in the centre of the eastern side to face the rising sun, and the western door, *sta*, to face the setting sun, as it was through the latter that the god Anubis conducted the soul to the other world. On the other hand, the Babylonians and Assyrians directed the angles, and not the sides, of their temples to the cardinal points, for what occult reason is not clear. Again, Mr. J. Walter Fewkes has found that the *kib-vas*, or sacred chambers, of the Tusayan Indians at the Moqui Pueblo are oriented north-east and south-west. This he at first thought was owing to the character of the bluff, but there are reasons to believe it of a ceremonial origin.

Some curious observations in this connection are reported by Mr. Robert M. Swan, about the Zimbabwe ruins, in the last number of the *Journal of the Royal Geographical Society*. He found a series of ornaments on the walls of the great temple so disposed that one group would receive directly the sun's rays at his rising and another at his setting at the period of the winter solstice, when these points in that

latitude were respectively 25° south of east and west: while a third series of ornaments faced the full midday sun. Others were similarly arranged for the summer solstice; and a great stone over the temple showed, by alignment with the main altar and a carved pattern on the wall, the true north and south.

Last year an English archæologist undertook a journey to Greece to make a special study of the orientation of the ancient temples on that classic ground, but his results have not yet appeared. Certainly, as will be seen from the above, the point is one full of significance.

#### On Prosopology.

There is little doubt that craniology, as a branch of anthropology, has been much over-estimated, and affords only very insecure material for ethnic classifications. On the other hand, the study of the features of the face, which may be called Prosopology, from the Greek, *prosopon*, face, is yielding constantly more valuable results. The width or narrowness of the face, the nasal and orbital indices, the prominence of the jaws, the facial angles, and the development of the chin, all are points of prime ethnic significance.

One of the leading European writers on this subject is Professor Kohlman of Basel, whose works are extremely instructive. In this country a series of papers on "The Ethnology of the Face," by Dr. A. H. Thompson, have appeared in the *Dental Cosmos* for the current year. They place the details of the subject in a popular light, and emphasize its value; but they would be more satisfactory had their author not been led astray by some of the books which he quotes. To class the Eskimos and the American Indians among the Mongolians is quite out of date; and to call the white race Caucasians, and to divide them into blondes and brunettes as leading subdivisions is scarcely less so. He does, indeed, distinguish an "Americanoid" type, from which he excludes the Eskimos and Aleuts as being "true Mongols;" on what grounds he or any one would be puzzled to say. He describes the hair of this "Americanoid" type as similar to that of the Mongolians, from which, in fact, it differs in nearly every respect. In spite of these drawbacks, Dr. Thompson's articles form a welcome and praiseworthy addition to recent American contributions to anthropologic literature.

#### Linguistic Bibliography.

The study of American languages will in the future be vastly facilitated by the admirable series of bibliographies by Mr. James C. Pilling, which are now being published by the Bureau of Ethnology. Some idea of their thoroughness may be gained from the fact that the latest issued, confined to the Algonquian dialects alone, has 614 double-columned, closely printed, large octavo pages! Compare this with the 258 pages of Ludewig's "Bibliography of American Aboriginal Literature," which included all the languages of both North and South America!

Mr. Pilling has put forth similar volumes, less in size but not inferior in completeness, on the Iroquois, Eskimo, Dakota and Muskokee groups of tongues; and proposes to lay a similar basis for the study of all the North American stocks. It would be most desirable for some similar catalogue to be made relating to the tongues of South America.

#### The Decrease of the Birth-rate.

One of the most portentous problems is the decrease of the birth-rate in certain social conditions. It is asserted on apparently good authority that the Negritos and the Poly-

nesians are dying out, largely owing to the infertility of their marriages. Certain South American tribes, the Guatos of Paraguay, for instance, will soon disappear from the same cause. But we need not confine our instances to savage peoples. Physicians say that our "colonial dames," scions of Anglo-American families who have lived several generations in this country, have much smaller families than their great-grandmothers.

In France this lessening of the birth-rate has assumed serious proportions, and has alarmed patriotic men lest as a nation it should become numerically too weak to hold its own in the conflicts of the future. The distinguished author and statesman, the Marquis de Nadaillac, has published some stirring admonitions to his countrymen on the subject under the titles "Le Peril National and la Depopulation de la France." He finds the birth-rate least in the cities, in the richest communes, and in the most prosperous conditions of society. Turning to its causes, he has convinced himself that this diminution is voluntary and of malice prepense on the part of married couples. They do not want the bother of many children; they do not wish their property to be split up; they prefer pleasure and ease to the labor of parental duties. Young men prefer mistresses to wives, and mistresses are always barren. The competition of modern life and its rabid thirst for enjoyment undermine the family tie. The birth-rate is small, not for physiological but for sociological reasons. How far this applies to the United States has not yet been sufficiently investigated; but it is probably nearly equally true here.

### THE VARIABILITY OF SPECIFIC CHARACTERS AS EXHIBITED BY THE EXTINCT GENUS CORYPHODON.

BY CHARLES EARLE.

It is a well-recognized law in biology, that a species or a genus upon the point of extinction undergoes a great amount of variation; and, as an example of this kind, I propose to describe some of the variations which the species of the fossil genus *Coryphodon* exhibit.

The fine collection of *Coryphodon* material in the American Museum of Natural History has enabled me to study this subject; and in a forthcoming paper in the *Bulletin of the Museum* I shall attempt a revision of the American species of *Coryphodon*.

The great amount of variation in this genus is shown from the fact that no less than twenty-one species have been described, and only in a few cases have any of them been acknowledged as synonyms.

Taking up the variation of the teeth, I will first describe the structure of a typical upper and lower molar of *Coryphodon*. The superior molars are a modification of the primitive tri-tubercular type, in which the anterior crescent, or antero-external lobe, has been lost, or so much modified that only traces of it remain. On the antero-external portion of the crown there is a prominent cone, which is in connection with the single internal lobe by a sharp crest (see Fig. a, c); this forms the main grinding surface of the tooth. On the second superior molar of a true *Coryphodon* there is always a well-developed postero-external crescent (see Fig. e, c), which is homologous with the postero-external crescent of other forms. This crescent may undergo a great amount of variation, as will be described later. In the last superior molar the postero-external crescent is represented by only a crest, which runs parallel, or nearly so,