

in the Accipitres, species of *Falco* and *Cerchneis* were found gorged with them; the Secretary bird (*Serpentarius secretarius*) is an orthopteral glutton; bustards, especially the "Gom Paauw" (*Otis kori*) can apparently exist on them alone, while flocks of the common "Spreo" (*Spreo bicolor*) make vast inroads in the immense swarms of the smaller species.

Their survival in the struggle for existence would seem to have been almost entirely dependent on their extraordinary fecundity. Only species with great vitality and immense power of reproduction could withstand the requirements of this mighty avian banquet. The origin of the brightly colored wings cannot, however, be placed to the credit of abundant vitality, as some genera of large and active species exhibit brightly and also sombre and modestly colored wings.

W. L. DISTANT.

Purley, Surrey, England, April 3, 1893.

A Puzzle for Future Archæologists.

NEAR Enon, in Clark County, Ohio, is a well-known artificial mound, commonly called "Prairie Knob," while the level tract on which it is situated is called "Knob Prairie." A former pupil of mine informed me that when he was a boy his grandfather sunk a shaft in the centre of the mound down to the underlying black soil, without finding any thing of consequence. The old gentleman was disappointed, not to say disgusted, to find this cherished landmark, which he had so long held in high esteem as the supposed receptacle of the regulation quantity of "Indian" relics, so utterly barren. He thereupon determined, in the generosity of his heart, that future explorers should not go unrewarded. He therefore deposited in the hole a miscellaneous collection of stone implements, pottery, shells, old bones, etc., such as he imagined a properly constructed mound ought to contain. This done, he carefully refilled the shaft, and restored the mound to its former appearance.

Imagine the sensation that such a find as this is likely to make when brought to light by some enterprising mound explorer of the twentieth century!

CHARLES B. PALMER.

Columbus, Ohio.

Pre-Historic Remains in America.

NOTWITHSTANDING Dr. Brinton's protest in *Science*, April 14, I think most readers will agree that the language I quoted from his "Races and Peoples" (not "American Race") is clearly open to the incidental criticism offered. That the physical conditions of the American continent have been a potent agency in forming a distinct race, as he explains his language, is readily admitted. I also believe they have moulded the *heterogeneous* elements which peopled the continent from different quarters, at different eras, into a comparatively "homogeneous race," but it is difficult to understand the process of rendering "homogeneous" those already one in race and derivation.

If Dr. Brinton has failed to observe a marked difference between the Atlantic and Pacific types, I presume it is because he has not made the comparison with this thought in view, as it is certainly very apparent. His reference to the few shells and copper articles found in Tennessee and Georgia bearing Mexican and Central American designs is unfortunate for his position. He knows, or ought to know, that these are looked upon by all archæologists as puzzling objects because of their remarkable departure from the types of the Atlantic slope. This fact is, of itself, evidence of the general impression in the minds of archæologists of the differences between the art types of the two regions.

He asks, "Is he [Thomas] not aware that both the Nahuatl and Maya languages trace their affinities exclusively to the eastern and not the western water-shed?" Not claiming to be a linguist, I must present as my reply the words of one who is.

Dr. D. G. Brinton says, in his "Races and Peoples," p. 248: "All the higher civilizations are contained in the Pacific group, the Mexican really belonging to it by *derivation* and *original location*. Between the members of the Pacific and Atlantic groups there was very little communication at any period, the high Sierras walling them apart; but among the members of each Pacific and each Atlantic group the intercourse was constant and

extensive. The Nahuas, for instance, spread down the Pacific from Sonora to the Straits of Panama; the Inca power stretched along the coast for two thousand miles; but neither of these reached into the Atlantic plains." Observe that he says "all the higher civilizations," which, of course, includes the Maya as well as Mexican people. Even in his later work he reiterates this opinion. In speaking of the groups into which he classifies the stocks, he remarks: "This arrangement is not one of convenience only, I attach a certain ethnographic importance to this classification. There is a distinct resemblance between the two Atlantic groups and an equally *distinct contrast between them and the Pacific groups*, extending to temperament, culture, and physical traits" ("American Race," p. 58). Now, when it is remembered that he classes the Mexicans, and, by the above-quoted language, the Mayas also, with the Pacific group, it would seem that, at the date the book referred to was published (1891), he was advocating precisely the same view as that advanced in my letter to *Science*, as he directly contrasts the Atlantic and Pacific groups as to temperament, *culture*, and physical traits, and holds that there was very little communication between the people of the two regions. He says further of the Mayas, that "So far no relationship has been detected with any northern stock," but is inclined to look to the Mississippi Valley for their priscan home.

If Dr. Brinton still holds the view indicated in the above quotations, which are from his most recent works, I cannot understand the position he takes in his note to *Science*, as the one is in direct conflict with the other. I have not appealed to the numerous statements in his older works which differ from the views indicated in *Science*, as it appears that in the light of new data, and for reasons satisfactory to himself, he has, since 1887, entirely changed his views in reference to the origin of the people of the American continent and the course of migration so far as affected thereby. (See "Myths of the New World," 2d ed., pp. 34-35, and Address at Meeting of A. A. A. S., Salem, 1887.)

I may remark, in closing this communication, that it is very singular the numerous resemblances between the customs and arts of the West Coast Indians and Pacific Islanders, which descend even to unusual designs, have no special significance and are disposed of with the single word "illusory," while the resemblances in a few designs on shells and copper, though unusual, are sufficient to warrant us in looking to the valley of the Mississippi for the priscan home of the Mayas. Distance has, of course, to be taken into consideration in deciding as to the signification of these resemblances. What I assert is that the types of the West Coast, including Mexico and Central America, taken as a whole, have a more marked resemblance to the customs and art of what we may call the Pacific region (especially the islands) than to those of the Atlantic slope. This indicates, at least, a culture influence affecting the inhabitants of the Pacific Coast not felt on the Atlantic slope. And no theory which fails to give it more value than the mere coincident result of the "human psychological development" can abide the test of thorough examination.

CYRUS THOMAS.

The Lobatcheffsky Centenary

OCTOBER 22, 1893, a century will have passed since the birth of the famous Russian geometer, Lobatcheffsky. The world is just beginning to understand that, as mental ancestors of the modern scientific theory of man and the universe, only two take rank with him, Copernicus and Darwin. Until 1826 nothing had been published to overthrow the dogma that man has absolutely exact knowledge of "the space of experience." Lobatcheffsky showed that we can never know that any rectilinear triangle in "the space of experience" has its angle-sum exactly equal to a straight angle. As one result, geometrical axioms have disappeared for ever, and are replaced by *assumptions*. Thus he re-made not only mathematics, but kenlore. The Imperial University of Kasan is justly proud of its pupil, whom it speaks of as "encompassing it with an immortal splendor." It has organized a committee to raise a Lobatcheffsky fund to establish, in honor of his birthday, a prize, open to the world, for researches pertaining to non-Euclidean geometry. As a member of this committee, I will be