

is difficult to conceive of a form closely related to recent man as extending back to this period. The most that we could imagine would be that the place of man was occupied by some form not higher than the Javan *Pithecanthropus*, and possibly considerably lower than that type, and a question naturally arises as to whether a primate of this stage of evolution would or could make use of implements.

In the case of the eoliths of the Kent Plateau, Dr. MacCurdy has produced evidence which seems to favor intentional modification of form. On the other hand, M. Boule in a recent article² has figured and described most remarkable flint forms resembling eoliths, but produced by the impact on each other of numerous flints carried about in swiftly running water at a cement factory. In such a case as this, in which from the very nature of the problem the discrimination between natural and artificial becomes increasingly difficult, it would appear that other evidence must be called in before we can reach definite conclusions. Apparently the ultimate decision concerning many of the most important points relating to the very early history of man must be determined by purely paleontological observations upon his skeletal remains, and the European record of these is as yet practically a blank for the Eolithic epoch. We shall, however, always obtain a large part of our information concerning early man from studies of the industries which represent him.

In whatever way the question of European Pliocene and Miocene man is finally settled, the present discussion is furnishing the occasion for considerable contributions to our knowledge of the origin and distinctive characters of flaked flints both natural and artificial, and will lead to a much better understanding of this side of the problem. Certainly no possible line of investigation which can furnish us information concerning the earliest man-like types should be neglected. Whether or not we are willing to agree with the investigators in all their conclusions in this particular case, we must certainly com-

mend the earnest and painstaking effort which is being made to come to a clear understanding regarding the significance of the interesting materials now under consideration.

JOHN C. MERRIAM.

SCIENTIFIC JOURNALS AND ARTICLES.

The American Naturalist for March contains 'Notes on Reptiles and Batrachians of Pennsylvania, New Jersey and Delaware,' by Witmer Stone; 'Anatomy of *Acmaea testudinalis* Muller, Part I, Introductory Material—External Anatomy,' by M. A. Willcox; 'Affinities of Certain Cretaceous Plant Remains commonly referred to the Genera *Dammara* and *Brachyphyllum*,' by A. Hollick and E. C. Jeffrey; 'A New Pycnogonoid from the Bahamas,' by L. J. Cole; and 'Additional Notes on Bahama Snakes,' by T. Barbour.

Bird-Lore for March-April has a well-illustrated article by Herbert K. Job, entitled 'Some Bird Notes from the Magdalens,' 'A Familiar Sparrow Hawk,' by N. C. Brown, and 'Legs and Feet of Birds,' by C. William Beebe, showing their many modifications to adapt them for various uses. Under the section 'For Teachers and Students' we have the fifteenth paper on 'The Migration of Warblers,' by W. W. Cooke, and a 'Brief General Classification of the Songs of Eastern North American Wood Warblers,' by Gerald H. Thayer. In the Audubon Societies is noted the recent unanimous decision by the court of appeals that the sale of foreign game may be prohibited during the close season for similar native species. The Educational Leaflet is devoted to the belted kingfisher and includes a fine colored plate.

The Museums Journal of Great Britain for February contains the program for the July meeting of the Museums Association, which will be held at Bristol. There is an article on the 'Future of Museums,' by H. Bolton, which deals with the relations of provincial to government museums, a phase of museum administration that does not apply to the United States. 'Museums and Private Col-

² M. Boule, 'L'Origine des Eolithes,' *L'Anthropologie*, 1905, T. 16, No. 3, pp. 257-267.

lections,' by S. L. Moseley, shows how much harm may be wrought by the private collector and pleads for a more public spirit. The number is specially rich in notes on art museums and records the 'discovery' of a number of paintings by Turner in the cellars of the National Gallery.

The Museum News of the Brooklyn Institute for April contains articles on 'Zuni Pottery-making,' the 'Great Anteater' and 'The Care of an Aquarium,' besides numerous notes relating to the collections and libraries of the museums.

The Bulletin of the College of Charleston Museum has articles on the 'Birds of the Coast Region of South Carolina' and a synopsis of the museum lecture on typhoid fever.

SOCIETIES AND ACADEMIES.

THE NATIONAL ACADEMY OF SCIENCES.

THE regular annual session of the National Academy of Sciences was held in Washington, April 16 to 18, inclusive.

The following members were present during the session: Messrs. Abbot, Agassiz, Becker, Billings, Boss, Brewer, Brush, Campbell, Cattell, Chittenden, Crafts, Dall, Dutton, Emmons, Gill, Hague, Hale, Holmes, Howell, Merriam, Morley, Morse, Newcomb, Noyes, Osborn, Peirce, Pupin, Remsen, Trelease, Walcott, Webster, Welch, Wells and Woodward.

The following new members were elected: Benjamin O. Peirce, Cambridge, Mass.; William B. Scott, Princeton, N. J.; Josiah Royce, Cambridge, Mass.

Professor Wilhelm Ostwald, of Leipzig, and Professor H. A. Lorentz, of Leiden, were elected foreign associates.

Messrs. Billings, Chittenden, Hale, Osborn, Welch and Woodward were reelected members of the council for one year.

The Draper medal was presented to Mr. W. W. Campbell at a dinner given by Mr. Alexander Agassiz at the New Willard Hotel on Tuesday evening, April 17.

The following program was presented:

J. McK. CATTELL: 'The Distribution of American Men of Science.'

C. S. PEIRCE: 'Recent Developments of Existential Graphs and their Consequences for Logic.'

THEO. HOLM: 'Commelinaceæ. Morphological and Anatomical Studies of the Vegetative Organs of Some North and Central American Species.' (Presented by Theo. Gill.)

A. AGASSIZ and H. L. CLARK: 'On the Classification of the Cidaridæ.'

THEO. GILL: 'Interference of Oviposition of a Sargasso Fish with a Flying Fish.'

H. F. OSBORN: 'Faunal and Geological Succession in Eocene and Oligocene Basins of Rocky Mountain Region.'

W. J. SINCLAIR: 'Volcanic Ash in the Bridger Beds of Wyoming.' (Presented by H. F. Osborn.)

C. E. DUTTON: 'Radioactivity and Volcanoes.'

C. D. WALCOTT: 'Cambrian Faunas of China' (with lantern illustrations).

GEORGE E. HALE: 'Recent Solar Investigations' (with lantern illustrations).

W. W. CAMPBELL and C. D. PERRINE: 'Some Recent Solar Eclipse Results.'

M. I. PUPIN: 'Feeble Rapidly Alternating Magnetization of Iron.'

J. M. CRAFTS: 'Primary Standards for Temperature Measurements between 100° and 350°.'

ASAPH HALL: 'Biographical Memoir of Admiral John Rodgers.'

W. M. DAVIS: 'Biographical Memoir of George P. Marsh.'

THEO. GILL: 'The Life History of Pterophryne.'

SOCIETY FOR EXPERIMENTAL BIOLOGY AND MEDICINE.

THE fifteenth meeting of the Society for Experimental Biology and Medicine was held in the Physiological Laboratory of the New York University and Bellevue Hospital Medical College on Wednesday evening, February 21, 1906. The president, Edmund B. Wilson, was in the chair.

Members Present.—Auer, Beebe, Brooks, Calkins, Emerson, Field, Gies, L. Loeb,¹ Lusk, A. R. Mandel, J. A. Mandel, Meltzer, W. G. MacCallum,¹ Murlin, Opie, Park, Richards, Salant, Shaffer, Sherman, Torrey, Wallace, Wilson, Wolf.

Members Elected.—Walter R. Brinckerhoff, Warren P. Lombard, B. T. Terry, E. E. Tyzzer.

Officers Elected.—President, Simon Flexner; vice-president, E. K. Dunham; librarian, Gra-

¹ Non-resident.