

among the Zulus suffered from them for a few years after conversion. They are identical with the 'ecstasy' and prophetic 'manteia' (*i. e.*, mania) which played such a large part in the orgiastic rites of Greece and, indeed, of the whole ancient world. The human soul was everywhere regarded as a gift of, or akin to, the Divine, and in its nature, prophetic; so that when, in these moments of strange emotion, it spake with tongues and entered into rapt communion with the Spirit, it simply expressed its true nature and noble origin.

Christianity, which taught that 'the gods of the heathen are devils,' changed the meaning of *daimon* from a beneficent guardian to a diabolic imp, and called the inspiration of the Pythoness a 'possession by the devil.'

Psychology, unable to recognize the god as the devil in these attacks, sees in them the emotional outbreaks of the sub-liminal consciousness, examples of pathological psychic automatism, occurring always in weak or weakened minds, excited by auto- or collective suggestion, limited always by the boundaries of the individual mind itself, never in any proved instance exceeding its powers, though sometimes seeming so to do, owing to deficient observation on the part of the observer. The proof of the correctness of this position is that experienced alienists never see a case of demonic possession. Their arrival is as certain to dispel it as is, according to Dr. Nevius and many other good men, the 'sacred name' itself. What the alienist sees is hysteric or epileptoid convulsions, or emotional contagious mania, and the like; and this is all that any one will see who carefully studies such conditions.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

Naual oder die Die Hohe Wissenschaft der Architectonischen und Künstlerischen Composition bei den Maya-Völkern deren Descendenten und Schülern. By A. EICHORN. Berlin. 1896. Pp. 1-126.

It seems the time has not yet come when it will be understood that the treatment of anthropological problems requires as much training and knowledge as work in other branches of science; else a book like the present would

not have been published with any serious pretensions. The scientific method of the author is sufficiently characterized by the naïve etymology of meander from the Maya word *mai*, hand, and *andros*, genitive of *ánhrp*, *i. e.*, a man's hand. His other etymologies are of the same value. The author treats words in the most arbitrary manner, changing the order of sounds and syllables, and fits this material to fanciful theories on a heroic language of the Mexicans, and to no less fanciful interpretations of sculptures. As a scientific contribution the work is of no value.

F. BOAS.

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES, SECTION OF GEOLOGY AND MINERALOGY, OCTOBER 19.

THE first paper of the evening was by Arthur Hollick, entitled 'Geological Notes; Long Island and Block Island.' Previous investigations on Staten Island, Long Island, Martha's Vineyard and Nantucket have proved a unity of geologic conditions throughout, and it was confidently expected that a careful examination of Block Island would show this also to be part of the same general series. During the past summer the island was visited and proofs were obtained of drift phenomena, identical with those of the other localities. A collection of fossils was made which demonstrated the former existence of cretaceous strata on the island. The material collected consisted of plant remains, imperfectly preserved and of mollusks in a good state of preservation. These latter were identified by Prof. R. P. Whitfield and the list numbers ten species, in addition to fragmentary remains of perhaps half a dozen more. They are typical of the lower green-sand marl and were found as drift material in the moraine, under the same conditions in which similar fossils have been found in the other localities mentioned. It was also thought advisable to visit again the eastern end of Long Island in order to ascertain whether more definite fossil remains could be found on Montauk Point, where imperfectly preserved fossils had been discovered on a previous occasion. Here also well preserved mollusks were found, likewise identified by Prof. Whitfield, who has

furnished a list of five species and two genera, in addition to which were a number of imperfect specimens, representing about five additional species. The discoveries were highly satisfactory, and furnished the proof that had been confidently expected. The specimens collected were exhibited.

The second paper was by Prof. J. F. Kemp on the Glacial or Post-Glacial Diversion of the Bronx river. The speaker showed that the Bronx river from its source to Williamsbridge follows an old valley, excavated in limestone. This valley continues from a point below Williamsbridge to its end, on the Sound opposite Randall's island and there is a depression the entire distance. Just below Williamsbridge, however, the river turns from its old valley and breaks through a ridge of enclosing gneiss on the east. It has excavated a gorge about 70 feet deep, with large fresh pot holes remaining on the sides, respectively at altitudes of 20 and 50 feet above the stream. The maximum height of the divide between the present channel and the older one is only 10 to 15 feet. The speaker found difficulty in accounting for the diversion, in that no barrier of gravel or other deposit is visible along the line of the old channel, which would turn the stream from this across the high ridge in which is the gorge. The freshness of the pot holes indicated that the stream had cut the gorge during the glacial times and since then. He therefore referred the diversion to the ice of the continental glacier a lobe of which must have filled the earlier channel. It is probable that the early excavation was done by a sub-glacial stream, heavily loaded with sediment.

The third paper of the evening was by D. H. Newland on the Eclogites of Bavaria. The speaker described the extent and mineralogy of the rocks and his attempts to discover their unmetamorphosed originals. Chiefly on chemical analysis he was led to infer that they had been originally diabases or gabbros.

J. F. KEMP, *Secretary*.

SECTION OF ANTHROPOLOGY, PSYCHOLOGY AND PHILOLOGY, OCTOBER 26, 1896.

THE Academy met with Prof. F. H. Giddings in the chair. The Sub-section of Psychology

and Anthropology immediately organized and the following papers were presented:

J. McK. Cattell, 'On Physical and Mental Measurements of Students of Columbia University.' This paper described the results of a series of tests that has been made in conjunction with Dr. Farrand on students of Columbia University during the past two years. The members of the Freshmen class were requested to come to the psychological laboratory, where their physical, psycho-physical and mental traits were tested. An hour was given to each student, 10 records and 26 measurements being made. The tests selected, the methods of making them, and the results were described. Special stress was laid on the value of such work in the study of development and of the correlation of physical and mental traits. The paper will appear in full in the current (November) number of *The Psychological Review*.

Franz Boas, 'On the Limitations of the Comparative Method in Anthropology.' This paper will appear in full in an early number of SCIENCE.

LIVINGSTON FARRAND,
Secretary of Sub-section.

NEW BOOKS.

A Popular Hand-book of the Ornithology of Eastern North America. THOMAS NUTTALL. Second revised and annotated edition by Montague Chamberlain. Boston, Little, Brown & Co. 1896. Vol. I., liv+473; Vol. II., xi+431.

A-Birding on a Bronco. FLORENCE A. MERRIAM. Boston and New York, Houghton, Mifflin & Co. Pp. x+226. \$1.25.

Hand-book of Courses Open to Women in British, Continental and Canadian Universities. ISABEL MADDISON. New York, The Macmillan Co. 1896. Pp. iv+155. 50 cts.

The Elements of Electro-Chemistry. MAX C. BLANC. Translated by W. R. WHITNEY. London and New York, The Macmillan Co. 1896. Pp. x+284.

Transactions of the American Climatological Association for the Year 1896. Vol. II., The Report of the Committee on Health Resorts. Philadelphia. 1896. Pp. xxviii+293.