

At Westbrook Seminary, a private city school, the athletes are slightly below the others. At Hebron Academy, the largest in Maine, the athletes, for a period of three years, fell five per cent. below the non-athletes. In all the secondary schools for which I have trustworthy records, the athletes fall lower, but never more than five per cent. lower, than other students.

These facts regarding the relative scholarship of athletes and non-athletes cover the records of about two thousand students in six institutions for five years. The facts were gathered by twenty men of varied opinions on the question, who were not endeavoring to make the figures prove any theory or support any opinion. So far as the facts go, they are authentic. They overthrow two thirds of the *a priori* assumptions regarding the excessive injury of intercollegiate games to the scholarship of the men who play.

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NOTE ON THE YPSILOID APPARATUS OF CRYPTOBRANCHUS.

A DESCRIPTION of this cartilage in a recent article by Whipple ('The Ypsiloid Apparatus of Urodeles,' *Biol. Bull.*, May, 1906) differs radically from the description by Reese ('The Anatomy of *Cryptobranchus*,' *American Naturalist*, April, 1906). According to Whipple the cartilage has the typical Y-shape common to urodeles, being bifurcated at the anterior end; according to Reese it is rod-shaped. Having an abundance of material at my disposal, I examined this apparatus in a number of specimens. In every case the cartilage is Y-shaped, but with a marked difference in the structure of the anterior and posterior regions: the posterior portion, forming the stem of the Y, consists of a stout rod of cartilage; the expanded V-shaped anterior portion is very thin. In a dry preparation this thin expanded anterior portion would probably shrivel up and might be easily detached and hence overlooked; the remaining portion would then answer the description given by Reese. It is

evident that in its entirety this apparatus has the typical urodele form.

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A NEWLY-FOUND STONY METEORITE.

THE writer has received notice from a correspondent in Alabama of the finding, near Selma, in that state, of a heretofore undescribed meteorite. The mass is reported as weighing upwards of 300 pounds, and is of Brezina's kugel chondrite type, much resembling the well-known stone from Tieschitz, in Moravia. It will be known as the Selma, Alabama, stone. A detailed description will be published later.

GEO. P. MERRILL.

SPECIAL ARTICLES.

THE GREAT CATALOGUE AND SCIENTIFIC INVESTIGATION OF THE HEBER R. BISHOP COLLECTION OF JADE.¹

THREE years ago, on January 3, 1903, it was my sad duty to read before this section of the American Association for the Advancement of Science, at its meeting in Washington, a notice of the death of Mr. Heber R. Bishop, accompanied by a brief description of his remarkable collection of jade objects (see *Amer. Anthropologist*, N. S., Vol. 5, January-March, 1903, pp. 111-117). See also the Metropolitan Museum Bulletin for May, 1906.²

Since that time this magnificent collection, which was presented by Mr. Bishop during his lifetime to the Metropolitan Museum of Art, in New York, has been arranged and installed. He made a large donation for this purpose, and had had prepared and fitted up for its suitable exhibition the northeast room on the second floor of the new wing of the museum

¹ Read before the American Association for the Advancement of Science, New Orleans meeting, December 31, 1905.

² See the printed catalogue of the Heber R. Bishop Collection of Jade. By George F. Kunz. Occasional Notes No. 2, Bull. Metropolitan Museum of Art, May, 1906, pp. 1-8. 8vo. Three illustrations.

building, to be known as Bishop Hall. This room he had arranged and decorated by the noted firm of Allard Frères, of Paris, to make it the finest example on this continent of the style of Louis XV. The collection is here placed in some fifteen elegant cases, of gilt bronze and plate glass, all in Louis XV. style, which with the decorations of the room, illustrate a permanence and richness of material never excelled in the time of the artistic French monarch himself.

In my notice before mentioned, reference was made to the remarkable volume describing this collection, and to the studies and researches in connection with it provided for and sustained by Mr. Bishop. It is a pleasure to me to be able to state that at the present time the entire edition of this unique work, limited to one hundred copies, is not only printed but bound. The two copies required by law, in order to secure the copyright, are already placed in the National Library; and by January 2 the whole edition of this sumptuous publication, so valuable from both a scientific and an artistic standpoint, will be distributed, or at least on its way, to the crowned heads and the important public institutions that are to receive copies by the terms of Mr. Bishop's will. In no case will the book go to any private individual, and in no case will it be sold.

The two volumes (stately folios)* are printed on the finest quality of linen paper, and weigh respectively 69 and 55 pounds, or 124 pounds together. They contain 570 pages (Vol. I., 277 pp.; Vol. II., 293 pp.), measuring 19-15/16 by 26-1/4 inches. There are 150 full-page illustrations, in the highest style of execution—water-color, etching and lithograph, and nearly 300 pen-and-ink sketches in the text. In cost, this great work is double that of the monumental folio of Audubon's 'Birds of America,' amounting to about \$2,000 a copy, and stands alone as perhaps the greatest volume ever issued, and certainly the greatest catalogue of a collection in any

branch of science or art. The total expense of 100 copies being \$185,000.

The preparation of this great work was made possible by the princely liberality of Mr. Bishop, who had planned it fully since about 1886. To carry out these plans to their completion in the final distribution now to be made, has taken, therefore, just about twenty years. No expense nor care was spared in the execution; some thirty scientific men and art specialists, both in Europe and America, were engaged to contribute their views upon various aspects of the whole subject; and the illustrations were prepared in the finest possible manner, Chinese and Japanese artists being employed to execute many of them, and color experts being freely consulted, with the supervision of Mr. Bishop himself.

The catalogue has, moreover, a special value from the fact that all the scientific investigations described therein were made upon material taken from specimens in the collection itself. These studies were in charge of the writer, assisted by a number of scientific specialists of the highest standing, and deal with all the physical properties of the different varieties of jade.

A full list of collaborators is as follows:

Dr. George Frederick Kunz, in charge of the mineralogical and archeological articles and descriptions.

Dr. Stephen W. Bushell, G.M.G. (Chinese article).

Dr. Robert Lilley (editor).

Tadamasa Hayashi (Chinese and Japanese).

Dr. William Hallock, professor of physics in Columbia University, New York.

Dr. S. L. Penfield, M.A., professor of mineralogy, Yale University.

Dr. Henry W. Foote, Sheffield Scientific School at Yale University.

Dr. Joseph P. Iddings, professor of petrology at University of Chicago.

Professor F. W. Clarke, chief chemist, U. S. Geological Survey.

Mr. Ira Harvey Woolson, adjunct professor of engineering at Columbia University.

Mr. Logan Waller Page, expert in charge of physical tests, Division of Chemistry, Department of Agriculture, Washington, D. C.

* 'Catalog and Investigations in Jade,' published by Heber R. Bishop (folio), New York, 1906.

Dr. Charles Palache, professor of petrography, Harvard University.

Mr. Louis V. Pirsson, professor of petrography, Yale University.

Dr. Henry S. Washington, petrographer.

Professor L. von Jaczewski, professor of mineralogy and geology at the University of Ekaterinoslav, St. Petersburg.

Herrn Geheimrath Dr. A. B. Meyer, director Königliches Zoologisches und Anthropologisch-Ethnographisches Museum, Dresden.

Herrn Dr. Max Bauer, director Mineralogisches Institut der Königlichen Universität, Marburg (Hessen).

Mr. Robinson, artist.

Dr. Thomas Wilson, late curator, Division of Prehistoric Archeology, Smithsonian Institution, U. S. National Museum, Washington.

Dr. Joseph Edkins, of Shanghai.

Professor A. Damour, of Paris.

Dr. Ludwig Leiner, curator of Rosegarten Museum, Constance.

Mrs. Zella Nuttall, Peabody Museum, Cambridge, Mass.

Miss Eliza Seidmore.

Dr. F. Berwerth, Mineralogisches Abtheilung, Hof Museum, Vienna.

Professor Ernst Weinschenk, professor of petrography at the Mineralogisches Institut, Munich.

The Field Columbian Museum, Chicago.

The Smithsonian Institution, Washington, D. C.

The Museum of Natural History, New York.

The following French etchers were represented: Sulpis, Guerard, Richard, Piquet, Le Rat, Coutry and a number of plates by Smillie of the United States.

The lithographs are by Prang & Co., and Forbes & Co., of Boston.

Name of maker of paper, the finest hand-made linen paper, especially made by the L. L. Brown Paper Co., Adams, Mass.

Name of printer, Theo. L. De Vinne & Co., Lafayette Place, New York. It is the most important work that has ever come from the De Vinne press.

Name of binders, Stikeman & Co., New York. Bound in full Levant with exquisite tooling. No hundred volumes have ever received such stately bindings of green Levant as was produced by Stikeman & Co.

The tools for the decorations by George W. De Lacéy.

A series (twelve full-page) of water-color sketches of all the processes of working jade in every possible manner was made in China by Chinese artists.

The original lithographic color plates were laid out on the lines of 'Gems and Precious Stones of North America.'

Among great illustrated books there are, Audubon's folio of birds, Svenegrodzkoï, 'Byzantine Animals,' published in Russia, Gould's 'Birds of Many Lands,' the great illustrated catalogue of Chinese porcelain of the Walters collection, issued by Mr. Henry Walters, the treasures of Tzarkoe Zelo, by the Russian governor, catalogue of the J. P. Morgan collection of Oriental porcelains. Magnificent as these all are, each in its own way, none of them possesses the great variety of artistic illustrations as does the great Heber R. Bishop catalogue.

This whole work, from its inception by Mr. Bishop in 1886 to the final distribution of the volumes, has required about twenty years. It is a cause for much satisfaction that the enterprise has been so fully and successfully completed, along the lines which he laid down; but it is also a source of profound regret that he could not himself have lived to witness its final place.

This whole cost has been met by the liberality of Mr. Bishop's provision, carried out by the care and thoughtfulness of his three executors, Messrs. Moses Taylor, Frank C. Bishop and Alexander James Patterson.

I must here express my thanks and appreciation to Mr. Alexander James Patterson, who has been untiring in his zeal and carefulness throughout the entire carrying out of Mr. Bishop's wishes, both written and unwritten, and to whose courtesy I am indebted for many of these facts, furnished me for the preparation of this article.

GEORGE FREDERICK KUNZ.

THE ROCK OF THE PELÉE OBELISK AND THE CONDITION OF THE VOLCANO IN FEBRUARY, 1906.

THE measure of doubt which has all along attached to the character and constitution of