of plants. Though left incomplete, it is a storehouse of information and suggestion.

Since then, prehistoric science has taken a long stride, and that branch of it devoted to the study of the vegetation which surrounded primitive man and his early culture-plants has not been neglected. We have but to remember what a conspicuous feature it is in the mooted question of the origin of the Aryans to see the value attached to it by thoughtful students.

In America, Dr. Harshberger, of the University of Pennsylvania, has contributed a searching study to maize, and others have traced the archæologic history of tobacco, mandioca, etc. A work which has just appeared in Europe from the competent pen of Dr. George Buschan takes up the cultivated and useful plants found in the prehistoric sites of the old world, both Europe and Asia (Vorgeschichtliche Botanik der Cultur und Nutzpflanzen der Alten Welt, auf Grund Prähistorischer Funde, J. U. Kern, Breslau, 1895). He has prepared for it by a ten years' study of the collections in various museums and in private hands, and has received the aid of most of the eminent archæologists of Europe. His results enable the student for the first time to estimate correctly the value and meaning of much of the material collected.

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CURRENT NOTES ON PHYSIOGRAPHY (XV.).

LAKES IN THE AUSTRIAN ALPS.

An atlas of the lakes in the Austrian Alps, prepared under the direction of Professors Penck, of the University of Vienna, and Richter, of the University of Graz, begins with a folio on the Lakes of the Salzkammergut, sounded by Simony and drawn by Mullner, and lately published by Hölzel, of Vienna. The text by Mullner will constitute a number of Penck's *Geographische Abhandlungen*, to be issued shortly. A second number of the atlas will be by Richter, concerning the more eastern Alpine lakes. The eighteen maps now published are on a scale of 1: 25,000; the land tinted in two or three shades of buff, the water in several shades of blue. The land has contours, generally at 20-meter interval; the water has the original sounding and the conjectural contours for every ten meters. Numerous true scale sections are added.

In this connection mention may be made of the atlas of French lakes by A. Delebecque, published by the French Ministry of Public Works, 1892–93 (Paris, Baudry), with maps on scales of 1: 10,000 and 1: 20,000, for which a text is announced as forthcoming. The land surface is here left blank.

LOFTY BALLOONING IN GERMANY.

The scientific skill of the Germans in lofty ballooning is only exceeded by the height of their ascents. The 'Cirrus,' fitted with automatic meteorological instruments and despatched without an observer, reached heights of 16,325 m. above sea level on July 7, and 18,500 m. on September 6, 1894; the minimum recorded pressures being 85 and 59 mm., and temperatures, —53° and —67°C. It is thought that these extremely low temperatures are nevertheless not so low as they should have been; the mechanical aspiration for the thermometer being regarded as insufficient. The heights are calculated with careful regard to temperature, thus making them less than the values that would be given by rough calculation, such as has been used by certain other aëronauts.

The 'Phœnix' carried Gross and Berson to a height of 7,930 m. on May 11, 1894; but this altitude was much exceeded by the ascent of Berson alone on December 4, to 9,150 m. above sea level, where the temperature was –47.9°C. Berson prepared himself for this extraordinary flight by a good

eight-hour sleep, while his associates made the balloon and the instruments ready. He carried up a steel cylinder, filled with a thousand liters of oxygen, condensed to 200 atmospheres pressure; this to reinforce his breathing at great heights. Only once was he partly overcome with sleep; then he roused himself with a loud scolding. He made a full series of observations on the way up and down; and when nearing the ground this well-trained observer packed up his instruments, so that they should not be injured in case he alighted violently. (Dr. W. Köppen, in *Annalen der Hydrographie*, 1895, May, 179–185.)

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SCIENTIFIC NOTES AND NEWS.

THE HUXLEY MEMORIAL.

THE movement inaugurated in England, in favor of the erection of a suitable memorial to the late Professor Huxley, by Lord Kelvin, Sir John Lubbock, Professor Michael Foster and others, is taking form rapidly. In conference with Lord Kelvin, a suggestion has been made by Dr. Thurston that the monument be made international, and it is expected that, on the convening of the British committee, in October, this extension of the plan may be given formal approval and a beginning of the work affected. Every member of the original provisional committee thus far consulted is reported to be favorably disposed, and the American promoter of the plan reports from Belgium an equally favorable inclination on the part of scientific men there; and it is expected that the same disposition will be manifested in Germany and in France. Meantime, the American subscription is already headed by Mr. Carnegie with $500 (and more, possibly, if needed), and is likely to reach a large sum. It is hoped that the American committee will be made up of leading men of science in the United States and the contribution be thus made a noteworthy one in other than a purely financial way. Scientific men and others interested in this great movement may, meanwhile, transmit their pledges and subscriptions either to SCIENCE or to Dr. Thurston, and they will be promptly entered upon the list, as received. The Huxley memorial cannot fail of being made worthy of that famous man and of the great nations taking part in its erection.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE Association met at Bordeaux on August 4th, at which place its first meeting was held twenty-three years before. The members were welcomed by the Mayor of Bordeaux, who called attention to the progress made by the city in educational, scientific and philanthropic institutions since the previous meeting of the Association. The number of elementary schools has been tripled, and there have been established faculties of science, letters, law and medicine, attended by more than 2,000 students. M. Émile Trélat, the President, chose as the subject of his address, *La Salubrité*, in which he traced the more important contributions of hygiene to science and human welfare. M. Livon, Secretary of the Association, gave an account of the preceding meeting at Caen and reported a necrology and the honors which had been conferred during the year on members of the Association. The Treasurer, M. Émile Galante, gave an account of the finances of the Association, from which it appears that the receipts for the year were over 86,000 fr. The capital of the Association is now over 1,000,000 fr. A large number of grants varying in amount from 200 to 1,500 fr. were made for the advancement of science in various directions. The Association met in four sections: Mathematics, physical and chemical science, natural science and