

fore presumed to be a rhyolitic glass.\* The material obtained by Professor H : 11 closely resembles the Mohawk Valley material. The Texas occurrence is of unusual interest, being in a region where evidences of the former existence of volcanoes are rare.

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*CURRENT NOTES ON ANTHROPOLOGY (VI.).*

THE CAUCASIC LINGUISTIC STOCK.

COL. R. VON ERCKERT, of the Russian army, already known for an excellent work on the ethnography of the Caucasus, has just published an epoch-making volume on the languages of that region (*Die Sprachen des Kaukasischen Stammes*, Vienna, 1895). In this he solves the intricate problem which has so long puzzled linguists as to the relationship and place of these tongues. He demonstrates by satisfactory evidence, structural and lexicographical, that these numerous languages and dialects, some thirty in number (the Ossetic, which is Aryan, being of course excluded), belong to one family, which should be called the 'Caucasic.' It is divided in three groups, the Georgian, the Circassian and the Lesghian. The stock stands wholly independent, all similarities to either Ural-Altaic or Indo-European proving accidental or unimportant. Which of the groups is nearest the ancient original tongue he does not pretend to decide; but he offers striking testimony to the persistence of the traits of these languages. The Georgian was written as early as the ninth century A. D., and he gives a letter composed by a bishop in 918. It is quite identical, both in syntax and words, with the current tongue of to-day.

All these facts are the more to the purpose since so much has been made of late years by Professors Sayce, Hommel and their followers, of what they call the 'Ala-

rodian' linguistic stock (*i. e.*, the Georgian), in connection with the pretended 'Sumerian' of lower Babylonia. It is likely that they will have to 'back water,' now that comparisons can really be made.

CUNEIFORM INSCRIPTIONS.

DR. HUGO WINCKLER, in his 'History of Babylonia and Assyria,' tells us that the cuneiform method of writing was in use among eight nations speaking entirely different languages. Whether this is quite accurate or not, we need not stop to consider, as there can be no question that it had a much wider distribution than used to be supposed. Last year the well-known French archæologist, M. E. Chantre, unearthed specimens of it at Pterium and Cæsarea, in Asia Minor, as far west, perhaps, as such inscriptions have been found in place. The excavations continued by the University of Pennsylvania at Niffer have proved rich in finds of tablets. But the champion recent discoveries appear to be those of M. de Sarzec at Tello. A brief account of his eighth campaign in that rich locality appears in the 'Révue Archæologique' of December last, extracted from the official report of M. S. Reinach. From it we learn that M. de Sarzec opened a small mound some hundreds of yards from that which he had previously worked, and chanced upon the very archives of the old city themselves. They were inscribed on tablets and neatly stored in trenches, where they had rested undisturbed these thousands of years. From these deposits he took out more than *thirty thousand* tablets, about five thousand in perfect condition, another five thousand very slightly injured, and the others more or less defaced. This magnificent discovery will have the greatest importance in revealing the history and character of the ancient Babylonian civilization.

\* Bull. Phil. Soc. Washington, Vol. XI., p. 389.

## THE ORIGIN OF NATIVE AMERICAN CULTURE.

AMONG the Americanists of Europe, Dr. Eduard Seler easily ranks in the first class. He is lecturer on American archæology in the University of Berlin, and his numerous writings are of the most solid merit. Two recent articles by him are significant. One in 'Globe' (Vol. 65, No. 20), entitled 'Where was Aztlan?' was inspired by Mr. Wickersham's article in 'SCIENCE,' December 8, 1893, in which that writer endeavored to discover 'Asiatic analogies' between the Aztecs, the Puget Sound Indians and various Asian tribes. Seler's second article is broader. It is entitled 'On the Origin of the Ancient Civilization of America,' and appears in the Preussische Jahrbücher (Vol. 79, 1895).

In these able and pointed papers he sums up with masterly force the arguments which prove that the culture of ancient America in all its details was indigenous, starting at various centers independently, and in no item or shred derived from instructors from across the ocean or across Bering Straits. 'American science,' he pertinently says, 'can only win by giving up once for all the vain attempts to construct imaginary connections between the cultures of the old and new continents,' and he points out clearly that this independence of historic connection is what lends to American archæology its greatest importance.

In singular and sad contrast to these truly scientific views are the efforts of a local school of American students to rehabilitate the time-worn hypotheses of Asiatic and Polynesian influences in the native cultures of our continent. The present leader of this misdirected tendency is Professor O. T. Mason, whose articles in the 'International Archives of Ethnography' and in the 'American Anthropologist,' bearing on this question do the utmost credit to his extensive learning and the skill with which he can bring it to bear in a lost cause. His

latest, entitled 'Similarities of Culture' (Amer. Anthropol. April, 1895), is so excellent an effort that it is all the more painful to see its true intent is to bolster up a moribund chimera. It is to be hoped that they will not influence the younger workers in the field to waste their energies in pursuing these will-o'-the-wisps of science which will only lead them to bootless quests.

## ARCHÆOLOGICAL NEWS FROM SWITZERLAND.

Two or three years ago the curious discovery was made in Switzerland that at one time, during the neolithic period, a dwarf race, true pygmies, flourished in Europe. The bones of a number of them were unearthed at Schweizersbild, near Schaffhausen, in connection with polished stone implements and pottery. The average height of the adults was about 140 centimeters, close to that of the Bushmen. They apparently lived along with other tribes of ordinary stature, as the remains of both were found together. The cubical capacity of the skull was about 1200 c.c. Several anatomists have given the skeletons close attention, notably Professor J. Kollman, of Basel, in the 'Verhandlungen der Anatomischen Gesellschaft,' May, 1894, who appends to his paper a bibliography of articles relating to the find.

The abundant richness of Switzerland as an archæological field is strikingly shown by an archæological map of the canton Zurich, prepared by Dr. J. Heierli, and just published in the city of the name. It is very neatly printed in colors, showing by the tint the relative age of the station, whether neolithic, Roman, Allemannian, etc. The author has added a pamphlet of explanations and an index, so as to familiarize students with the local sites and what they signify. It is heartily to be wished that some State of our country would follow this excellent example and thus lead to a more intelligent comprehension and a better preservation of the antiquities on our soil.

## SOUTH AMERICAN TRIBES AND LANGUAGES.

In the February number of the Journal of the Anthropological Institute, Mr. Clements R. Markham, republishes his 'List of Tribes in the valley of the Amazon,' which first appeared about twenty years ago. Of course there are many improvements in the enumeration; but it is amazing to note that by far the best recent authorities are not referred to, and their material is ignored. In the 'list of authorities' there is no mention, for instance, of the names of Von Den Steinen, Ehrenreich or Barbosa Rodriguez. For the linguistics he quotes Dr. Latham as still the authority. In fact, the best work done in Amazonian ethnography within the last decade is not mentioned nor utilized.

Some interesting studies in the languages of the Argentine Republic should not be overlooked. The Allentiac was a language, now extinct, spoken in the vicinity of San Juan de la Frontera. A little catechism, grammar and vocabulary of it was printed by Father Louis de Valdivia in 1607, of which only one perfect copy is known. This has been edited with a useful introduction by José T. Medina (Sevilla, 1894), and has been made the subject of a neat study by General Bartolome Mitre (Estudio Bibliografico linguistico de las Obras de Valdivia, La Plata, 1894; pp. 153). He inclines to consider it a separate stock.

The well-known Argentine linguist, Samuel A. Lafone Quevedo, has added another to the list of his valuable monographs by a thorough study of the mysterious Lule language (Los Lules; Estudio Filologico, Buenos Aires, 1894, pp. 145). It is based, of course, on the grammar of Machoni, and reaches the conclusion that the modern are not the ancient Lules, and Machoni's grammar is that of a tongue which belongs with the Quichuan group, and not among those of the Gran Chaco.

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## CORRESPONDENCE.

## A LARGE REFLECTOR FOR THE LICK OBSERVATORY.

MR. EDWARD CROSSLEY, F. R. A. S., of Halifax, England, has offered to present his 3-foot reflecting telescope to the Lick Observatory with its apparatus and dome, complete. The grateful thanks of the Observatory are returned for this generous and highly appreciated gift.

EDWARD S. HOLDEN.

MOUNT HAMILTON, April 4, 1895.

## SCIENTIFIC LITERATURE.

*Alternating Generations. A Biological Study of Oak Galls and Gall Flies.* By HERMAN ADLER, M. D. Schleswig. Translated and edited by CHARLES R. STRATON. New York, Macmillan & Co.

The recent appearance, from the Clarendon press, of an edition of Dr. Herman Adler's celebrated work, which was published some fourteen years ago, on alternating generations among the Cinipidæ, being a biological study of oak galls and gall-flies, will be welcomed by all interested in the subject, especially by those who do not read German or French. The English translation is by Charles R. Straton. The work consists of: (1) an introduction by the editor; (2) the translation proper, to which the editor has added, in brackets and in smaller type, the popular English name of the gall, the particular oak upon which it is found, and a list of the inquillines and parasites that have been reared from each species; (3) as Appendix I., by the editor, a full account of *Cynips kollari* Hartig; (4) as Appendix II., a synoptical table of oak galls; (5) as Appendix III., a classification of the Cynipidæ, and (6) a bibliography.

The synoptical table of oak-galls (Cynipidæ alone included) is based on European species; while the classification includes not only European but a certain number of