

made in March, 1915, and a careful inspection showed that the number of carvings on the rock was very large, and that some have been coated over to such depth that they may be made out only in the most favorable illumination or shading. Others show as deep furrows with weathered surfaces, visible at a hundred yards or more, while none of recent origin have yet been found.

A slice of the travertine extending across four lines of a complex pictograph and down to the granite base was cut out, and the surfaces of the sample are now being polished and prepared for critical examination. Some time may be required to determine the degree of uniformity, or of differentiation into layers which might indicate more than one period of deposition, and a series of such samples may be necessary for the reconstruction of the history of Blake Sea and of Salton Lake.

The carvings were apparently not made in the granite, but in the travertine, and extended study may be necessary to determine the depth at which the figures were made, and what deposition and weathering has since taken place. The facts favor the presumption that Blake Sea was a fluctuating body of water and not a continuously receding one. The final proof of the matter will rest chiefly upon biological evidence concerning the activities of organisms in connection with the deposition of tufas, to which the botanist may be expected to contribute.

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#### SOCIETIES AND ACADEMIES

##### THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON

At the 486th meeting of the society, held April 6, Dr. Gudmund Hatt, of the University of Copenhagen, read a paper entitled "At Home with Lapps and Reindeer," illustrated with lantern slides. About 6,000 of the 30,000 Lapps are nomads and retain much of their old culture, because old habits and thoughts are necessarily connected with their nomadic life. The Lappish world is full of supernatural powers that seem to be recruited from the ghosts of the dead. An underground people, generally invisible, called "saivo," are be-

lieved to be reindeer breeders. The shaman sometimes goes to the saivo world to secure the recovery of a sick person and until recently offerings were made to it to prolong life. Vagrant spirits, "muones," bring sickness. There are also local spirits, not spirits of the dead, who inhabit and own certain localities. Every part of the lodge is connected with supernatural powers. The place behind the fire is sacred. Lapps are considered great magicians, the main purposes of their art being to bring sickness and death and to cure sickness. The evil influences that bring sickness are driven away by terrifying the hostile power. Again, the sick part may be touched by the object from which the evil came, in order to cure it. The idea of reindeer luck is characteristic. Until lately, sacrifices were in vogue to insure it. No bone must be broken in the sacrifices of reindeer. The bones were formerly sometimes placed in a spring. Formerly the same deity presided over the birth of children and of reindeer calves. To take the life of a human being will buy reindeer luck.

At the 487th regular and 36th annual meeting of the society, held April 20, Dr. Henry R. Evans, of the Bureau of Education, read a paper on "The Old and New Magic." In addition to explanations given in his book under this title, the doctor explained that thought transference and even hypnotism might be the real explanation of the phenomena exhibited by so-called mediums and clairvoyants. Dr. Gudmund Hatt said that Lapps caused and cured sickness through hypnotism and practised second sight. Mr. Mooney gave instances of hypnotism as practised by medicine men among American Indians. Mr. J. N. B. Hewitt, Mr. Francis La Flesche, and Dr. E. L. Morgan related their observations upon sleight-of-hand and other tricks practised among the Iroquois, the Pawnees, and other tribes. For example, "arrows" made of pliable vines were swallowed; also other objects by means of a tube inserted in the throat. Iroquois jugglers forfeited their life unless each produced a new trick at the annual meeting of the jugglers and correctly told the dreams of others.

The following officers were elected for the ensuing year: Dr. John R. Swanton, President; Dr. I. M. Casanowicz, Vice-president; Dr. Daniel Folkmar, Secretary; Mr. J. N. B. Hewitt, Treasurer; and Messrs. William A. Babcock, Francis La Flesche, George C. Maynard and Felix Neumann, and Dr. Edwin L. Morgan were elected Councilors.

DANIEL FOLKMAR,  
*Secretary*