

ice-covered land" must be the western edge of Termination Land.

I explained this matter fully in an article "Termination Land."¹² That article was commented on in Germany at length by Dr. Singer,¹³ who concluded that there was no reason for leaving the name "Termination Land" off the charts, and who also published with his article an excellent map proving that Termination Land and Drygalski's high land are one. It was also commented on by Dr. H. Wichmann¹⁴ who stated likewise that there was no cause for taking the name Termination Land off the charts; and by Dr. H. Haaek,¹⁵ who wrote that Drygalski's assumption could not be kept upright. That is to say, three leading German geographical authorities entirely agree with me as to Drygalski's high ice-covered land being Termination Land.

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SCIENTIFIC BOOKS

Putnam Anniversary Volume. Anthropological Essays presented to Frederic Ward Putnam in Honor of his Seventieth Birthday, April 16, 1909, by his Friends and Associates. New York, G. E. Stechert & Co. 1909.

The pupils, colleagues and friends of Professor Frederic Ward Putnam have chosen the very happy and suitable method of celebrating his seventieth birthday by presenting him with a volume of original anthropological essays. I had the pleasure of first meeting Professor Putnam at the Toronto meeting of the British Association in 1897 and was at once charmed by his personality. Since then I have renewed my friendship with him on every possible occasion, and have been more and more impressed with his enthusiasm and knowledge. I have seen the results of his labors in Cambridge, New York and Berk-

eley and have learned from his pupils how much they are indebted to him for their training, guidance and wise counsel. But in addition to gratitude for these advantages they feel a personal affection for the man himself, which is shared also by his colleagues at home, in England and elsewhere. It is as an honored and beloved master that his former pupils and friends offer this tribute.

It is manifestly impossible to give an account of the twenty-five essays, but the following statement will give some idea of their scope. A bibliography of over four hundred items indicates Professor Putnam's activity, but many of these are notes and annual reports. It is interesting to find that Professor Putnam, like so many anthropologists, started his scientific life as a zoologist; for ten years he was curator of ornithology in the Essex Institute and later took charge of the Vertebrata. Though most of his zoological papers deal with vertebrates, he also published a few papers on invertebrates. In 1869 he published the first annual report of the Peabody Academy of Science, and his last purely zoological paper was published in 1879.

By far the greater part of Professor Putnam's anthropological work was in the domain of archeology, so it is fitting that the first essay should be on "The Archeology of California," by an old pupil, A. L. Kroeber; thirty years previously Professor Putnam had written on the subject, and it is well known that the anthropological school of the University of California owes much to his wise direction. This essay gives a bird's-eye-view of what has since been accomplished, and enables us to form some estimate of the civilization of the ancient inhabitants of California. Among the archeological papers is a beautifully illustrated memoir on "Ancient Zuñi Pottery," by J. Walter Fewkes, which gives a needed synopsis of the old types of decorated vessels of the Zuñi, and the conclusion is drawn that the radical difference in the symbolism of prehistoric and modern Zuñi pottery confirms legendary evidence of the dual composition of the tribe. Charles C. Willoughby describes

¹² *The National Geographic Magazine*, Vol. XV., May, 1904, p. 221.

¹³ *Globus*, Vol. 86, No. 4, p. 63.

¹⁴ *Petermann's Geographischen Mitteilungen*, 1904, Heft VII., p. 2.

¹⁵ *Geographischer Anzeiger*, 1904, IX., p. 201.

in an illustrated article the "Pottery of the New England Indians"; this falls into three groups, Archaic Algonquian, Later Algonquian and Iroquoian. "The Slip Mound," which is described by William C. Mills, belonged to the highest culture of pre-Columbian man in Ohio; the builders of the mound had an intertribal trade, as evidenced by the copper from the Lake Superior region, the ocean shells and alligator teeth from the far south, and mica from North Carolina. Mr. Warren K. Moorehead in his "Study of Primitive Culture in Ohio" establishes Professor Putnam's classification of the remains into the Fort Ancient and Hopewell cultures and adds an earlier one of the "Glacial Kames." The Hopewell culture, to which the Seip Mound belongs, migrated from the south, and the original contention of Professor Putnam that the southern people had short heads and the Fort Ancient people had long heads has been proved. Marshall H. Saville gives a beautifully illustrated paper on the cruciform structures of Mitla and its vicinity; the form of the cross was connected with the cult of Quetzalcoatl and is proof of the widespread range of the Nahuatl pantheon, for we find his worship throughout the area of the Mayan culture, as well as in different parts of Mexico. George B. Gordon deals with the treatment of the macaw in Mayan art at Copan, and C. W. Mead with the fish in ancient Peruvian art. Mrs. Zelia Nuttall shows that the art of dyeing cloth by means of the *Purpura patula* has been continued in Mexico from pre-Columbian times to the present day, and points out that in the old and new world alike these are found in the same close association: (1) the purple industry and skill in weaving; (2) the use of pearls and conch-shell trumpets; (3) the mining, working and trafficking in copper, silver and gold; (4) the tetrarchial form of government; (5) the conception of "four elements"; (6) the cyclical form of calendar. The tribal structure of the Omaha is lucidly described by Miss Alice C. Fletcher, and in a well-illustrated memoir A. M. Tozzer describes several religious ceremonials of the Navaho, who borrowed, to be sure, but they were by

no means simply borrowers: they adapted and developed and, in many cases, especially in regard to the sand pictures, they did everything but actually invent the idea. Papers on linguistics are given by F. Boas (Iroquois), Roland B. Dixon (Wintun) and John R. Swanton (Siouan). S. A. Barrett describes the elaborate numerical system of the Cayapa of Ecuador and Charles P. Bowditch discusses some dates and numbers of the Dresden Codex. It is characteristic of the trend of American anthropology that there is only one paper on physical anthropology, that of Aleš Hrdlička, on the stature of the Indians of the southwest and of northern Mexico. There are a few papers which deal with non-American subjects, such as: Charles Peabody's essay on certain quests and doles, which is a very interesting study on a neglected branch of European folk-lore, and F. N. Robinson's notes on the Irish practise of fasting as a means of restraint, it being regarded as a procedure which it was in some way dangerous to resist. G. L. Kittredge in a learned essay brings evidence of a tradition of very long standing which asserts that Hercules set up pillars at both ends of the world, that is at the eastern end as well as the western. Professor Putnam, as some of his students have assured me, is a stimulating teacher, which, however, could be readily inferred from the mark his pupils have made in our science, and doubtless he has thoroughly appreciated the development of his ideas in very excellent scheme of instruction in primitive industries suitable for a normal college course by Harlan I. Smith.

This brief notice of an important collection of essays may fittingly conclude with an endorsement of the final paragraph of the dedication of the volume to Professor Putnam by Professor Boas:

May many years of health and strength be granted you to see the ripening of your plans and the achievements of your younger friends, whose progress has always been a chief pleasure to your life!

ALFRED C. HADDON
BLUE HILL METEOROLOGICAL OBSERVATORY,
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