

SCIENCE

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING, Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; J. LE CONTE, Geology; W. M. DAVIS, Physiography; O. C. MARSH, Paleontology; W. K. BROOKS, Invertebrate Zoölogy; C. HART MERRIAM, Vertebrate Zoölogy; S. H. SCUDDER, Entomology; N. L. BRITTON, Botany; HENRY F. OSBORN, General Biology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. McKEEN CATTELL, Psychology; DANIEL G. BRINTON, J. W. POWELL, Anthropology; G. BROWN GOODE, Scientific Organization.

FRIDAY, APRIL 3, 1896.

EXPEDITION TO SERILAND.*

CONTENTS:

<i>Expedition to Seriland</i> : W J MCGEE.....	493
<i>Note on the Permanence of the Rutherford Photographic Measures</i> : HAROLD JACOBY.....	505
<i>Annual Reception and Exhibit of the New York Academy of Sciences</i> : T. H. WADE.....	507
<i>Current Notes on Anthropology</i> :— The Indian as a Farmer; Racial Psychology: D. G. BRINTON.....	509
<i>Scientific Notes and News</i>	510
<i>University and Educational News</i> :— Graduate Scholarships and Fellowships in the University of Pennsylvania; General.....	512
<i>Discussion and Correspondence</i> :— Certitudes and Illusions: M. Principles of Marine Zoögeography: THEO. GILL. Röntgen Ray Experiments: DAYTON C. MILLER. The Inverted Image on the Retina: C. L. F. Necessary and Sufficient Tests of Truth: M. M. The Temperature of the Earth's Crust: ELLEN HAYES. The Prerogatives of a State Geologist: ERASMUS HAWORTH.....	513
<i>Scientific Literature</i> :— Bans on the Weasels of Eastern North America: C. H. M. Clarke's Report on the Field Work in Chenango County, N. Y.: C. S. PROSSER. Holman's Logarithms: HERBERT A. HOWE.....	525
<i>Scientific Journals</i> :— The American Journal of Science; The American Chemical Journal; Psyche.....	527
<i>Societies and Academies</i> :— New York Academy of Sciences: Section of Biology: C. L. BRISTOL. Section of Geology: J. F. KEMP. Anthropological Society of Washington: J. H. McCORMICK. Geological Society of Washington: W. F. MORSELL. Academy of Natural Sciences of Philadelphia: EDW. J. NOLAN. Boston Society of Natural History: SAMUEL HENSHAW. Academy of Science of St. Louis: WILLIAM TRELEASE.....	529

By the Spanish explorers and evangelists, most of the territory lying west of the Sierra Madre and south of Gila river, in what is now western Sonora and southwestern Arizona, was called Papagueria, or land of the Papago Indians. The eastern and northern boundaries of the area were fairly defined, but the western boundary was vague. Toward the mouth of Colorado river the Papago country was separated from the Gulf of California by an arid tract of volcanic debris known as Malpais, a tract too utterly barren for habitation, traversed by the Indians only on annual pilgrimages to the coast for salt. Toward the south, Papagueria was separated from the Gulf, midway of its length, by the land of the Seri Indians, a tract peculiarly protected from invasion by natural conditions and defended against invaders by a warlike people.

As exploration and evangelization grew into settlement, the Spaniards affiliated with the natives, and a Mexican population and culture pushed into Papagueria; and to-day most of the valleys occupied of old by the Papago Indians are given over to Mexican villages, ranches, and stock ranges, only scattered groups of the aboriginal landholders remaining in Sonora, though their tenure is better maintained in Arizona. With the conquest of Papagueria, explorers

MSS. intended for publication and books etc., intended for review should be sent to the responsible editor, Prof. J. McKeen Cattell, Garrison-on-Hudson, N. Y.

*Read before the Philosophical Society of Washington, February 15, 1896.