horizontally in a circle, which supported the roof-beams in a manner similar to that employed in some of the still roofed kivas observed by Nordenskiöld in the Mesa Verde region. The removal of a circular adobe cap resting on one of the horizontal logs revealed a well-rounded cavity in which were deposited turquoise and shell beads, pieces of crude shell, and turquoise in the matrix. Examination of the roof-beams resting on each of the six supports on the kiva bench showed a similar log with its cavity containing an offering. These offerings Mr Pepper regards, and very reasonably, as a sacrificial deposit indicative of some ceremony connected with the construction of the kiva. The author calls attention to an interesting observation made by Dr Fewkes, who witnessed a house-dedication ceremony at one of the Hopi villages, noting that particles of food, shell fragments, and beads were deposited in a small cavity in the wall at the left of the doorway of the newly erected dwelling, which was then sealed with adobe.

There can be no doubt that as the researches of the Hyde Expedition continue in this fruitful field much knowledge will be gained concerning the culture of the Indians who built and occupied the cliff and valley dwellings of the cañon region of the Southwest, as well as the meaning of many of the surviving customs and rites among their living descendants.

F. W. HODGE.

History of the New World Called America. By EDWARD JOHN PAYNE.

Vol. II. Oxford: Clarendon press, 1899, 8°, xxviii., 604 pp.

This is a work of great learning and originality. Volume I, which was printed in 1892, devotes its first 268 pages, called Book I, to the preparation of the Old World to discover the New, the finding of which was only an episode in the universal scheme of exploration. Book II, extending without a break or rest from page 269 in volume I to page 604 in volume II, is devoted to aboriginal America preparing itself unconsciously through the ages to enter the arena of history.

The fundamental activity in all this was the food quest, which the author claims first to have brought into prominence; but in this he neglects Morgan and Ward. However, he does insist louder than any predecessor that the search for food, the preparation of food, the very acts and noises of the food getter and devourer are at the root of progress.

A branch of the human species wandered into the New World, like other animal species procreated on the soil of the Old World, when the two—afterward parted by a depression of the earth's crust and the formation of a shallow strait connecting the Arctic sea with the Pacific

ocean—were continuous. Driven about by the increasing ice-fields of successive glacial periods, this branch spread over the New World in all its parts, while it was distinguished from the inferior animals only by some painful and strenuous form of articulate speech, by the possession of rude stone implements, and by the possession of fire-sticks. In each continent after ages and ages of changes, only the last of which were visible at the Conquest, one stock reached higher progress—the Nahuatlaca and the Aymara-Quechua. The formation of the Warrior and the Peasant class, or the development of militarism and industrialism consentaneously through food industries, and the evolution of religion continue the discussion of the first volume. The unit of aboriginal life and history is the pueblo, and the highest result of progress the dominant pueblo. In the middle of a paragraph on page 61 the panorama changes to the discussion of Migration, on page 78 to the discussion of Ethnological Unity, and at the bottom of page 81 to American languages. This third treats of the origin of language as shown in the languages of America. The unit of significance is not the root, but the holophrase or “polysyllabic unit of utterance.” Articulation is traced from the strenuous movements in the mastication and ingestion of foods, through increasing oralization, relaxation, and adjustments. These strenuous movements had their origin in the erect position of the *Anthropoidea*. If these two hundred pages were printed separately they would form a memorable volume on philology. Sixty pages are devoted to primitive mathematics, in which the vicenary system is specially emphasized. Here the author would be pleased to examine McGee’s late study on “The Beginning of Mathematics.” The relation of arithmetic to calendars and cycles and to games finds abundant illustration in American studies. The remainder of the volume, commencing on page 372, takes up, first, indigenous advancement, with patolli for a text, proceeds across the Miocene bridge, to discuss the spread of man over the New World, the paleo-ethnic small race, who first wandered from the Old World to the New (three of whose crania are said to be in the Peabody Museum, taken from the Trenton gravels), the Eskimo, the Athapascan, the Algonquian-Iroquois, the Nahuatlaca, and South American stocks and migrations. The Caribs are set forth with interesting originality and traced even into the Mississippi valley. The last hundred and fifty pages are devoted to Mexico and Peru, where the author is most at home and where he finds the best opportunity to demonstrate his theorem that the food quest overrides every other consideration in originating and developing human languages, industries, esthetic activities, social structures and functions, knowledges and religions.

In spite of the charming literary style, original suggestions, and great erudition displayed in this volume, we find it a difficult book to read. Instead of dividing it into chapters, the author has adopted the style of the double magic-lantern exhibition, in which, from beginning to finish, one picture fades from the screen and another takes its place without a break. The reader will acknowledge his obligation to the writer on every page for citations from old and rare books not within his reach, and if he misses any names it will be those of men now living and working. One regrets, for instance, to read hundreds of pages on ancient Mexico in which the name of Seler is wanting.

O. T. MASON.