

with the juice of the upas-tree, projected from a hollow cane, and, for very large game, use a bamboo bow and arrows. They live in bamboo huts about eight feet high, thatched with palm-leaves. They are ugly and timid, but inoffensive. They wear the hair flowing, instead of tied up as the Malays do, and are shorter than the latter, but resemble them in other physical characters. They are gradually becoming accustomed to Europeans; and one or two Malays are attached to each community, on the part of the government, to protect the people from injury or imposition.

The Malpais in Michoacan, Mexico. — Carlos Naulleau has visited the Malpais in Michoacan, Mexico, and from his account we extract the following notes of interest: The Malpais is situated four leagues from Panindicuaro, and is a region four leagues long and two wide, covered with fantastic emissions of a now extinct volcano. The pinnacles and blocks resemble a ruined city, and are so rough and angular that one would need steel armor to make one's way among them unwounded. There are many caverns, natural pits, and shafts to be avoided. The scene is extraordinary: the twisted and sombre rocks are destitute of the smallest sign of vegetation. It is said that in this retreat the ancient Indians fortified themselves against Cortes and his followers. The place is a natural citadel, within which, it is asserted, the aborigines built themselves a town surrounded by a triple wall with only one entrance. One legend states that thousands found a refuge here, and that the place was twice visited by a pestilence, the second time only sixty persons escaping to Zacapu. There, in the library of the Franciscan fathers, the Rev. Fermin Martinez, who has given the subject much study, has found some records relating to the fugitives. Among the higher parts of the confused masses of lava are several structures formed like *teocallis*, surrounded with a narrow stairway, and connected with each other by paths made of blocks of lava. There are also several ruined houses in different places. The most remarkable *teocalli* measures at the base thirty-five by twelve varas, and is fifteen varas high. It has been excavated for antiquities. At a depth of three or four varas were found several small cells built of adobe, each containing a skeleton with a small jar of pottery, many arrow-heads, and a few knives made of obsidian. The investigations were interrupted by banditti, who doubtless supposed that treasures of gold or jewels were being secured by the diggers.

Return of Aubry. — Aubry, who for two years and a half has been travelling in Shoa, Galla- and Somali-land, on a mission from the Ministry of public instruction, has safely returned to Paris.

His companion, Dr. Hamon, succumbed to fever on the eve of his return, and died by the Hawash River, between the Abyssinian mountains and the Gulf of Aden. Aubry was obliged to fight to escape the Somalis. In the confusion his collections of zoölogy and botany were lost; the mineralogical and geological collections, however, were saved, as well as all his note-books, maps, etc. The results of his work will soon be made public.

ASTRONOMICAL NOTES.

Comet 1885 V (Brooks). — We learn from Mr. Barnard of the Vanderbilt observatory, Nashville, Tenn., that he found this comet independently on the evening of Dec. 27, 1885, and telegraphed immediately to Swift his discovery, receiving in reply the announcement that he had been anticipated one day by Brooks. Mr. Barnard had resigned on the 30th of August, 1885, the zone (+ 15° to - 45°) originally allotted to him, and carefully watched since 1882; and it was only in casually devoting a few hours to the field in which he has been so successful that he picked up the new comet. An orbit computed by Chandler and Wendell shows that the comet is decreasing in brightness, having passed perihelion on Nov. 29, 1885.

The Lick observatory. — Professor Holden has written an interesting article for the *Overland monthly*, sketching the history of the observatory to the time of his taking charge. In regard to the immediate inception of astronomical work, he says, "It is of the first importance to find some means of paying the salaries of one or two observers for the years 1886 and 1887, in order that the magnificent equipment may be at once put to its legitimate uses. No great sum is required, but a few thousand dollars at this time would be of real service." It is stated that the first volume of publications of the 'Lick observatory of the University of California' is now in course of preparation, under the direction of the Lick trustees, by Capt. Richard S. Floyd and Professor Holden.

NOTES AND NEWS.

We take the following from Governor Robinson's message to the Massachusetts legislature: "Although no legislation seems to be needed upon this subject [topographical survey], it will not be inappropriate to emphasize the importance of the work, and to commend its successful prosecution under the direction of the state commissioners, acting in co-operation with the U. S. geological survey. During the year 1885 about two