

casionaly appearing in small acicular crystals with or without biotite, resembling those found in Norway and Greenland; lâvenite, one of the most constant minerals of these rocks, and the most notable colored mineral of the rocks at Rofare, the small crystals being remarkably well defined, with intense polychroism; the author believes that these nephelinic syenites of the Isles of Los are those in which lâvenite occurs most abundantly; rinkite; astrophyllite, constant in the syenite of Rouma Island, but only exceptionally found in that of Kassa Island; biotite, not often met with, sometimes perpendicularly impaled on the surface of crystals of magnetite; eudialyte, occasionally showing metamorphosis into catapleiite; villiamite, named by M. Lacroix after his faithful collaborator, M. Villiaume, a mineral characterized by an intense polychroism; fluorite, colorless, pink or light violet; pyrochlore, particularly abundant in the normal syenites of Rouma Island; galena; analcite, which the author regards as formed in a pneumatolithic phase and not a product of decomposition; hydrophyllite; mesotype; losite and a number of other minerals. Many of these are present in the second group of syenites in addition to zircon, titanite, titanomagnetite, woehlerite, etc.

Chemical analyses of a number of specimens of the syenite are given and the examples shown in the plates are very fully elucidated. We have only been able to note a few of the more important data contained in this stately, valuable contribution to petrography by France's greatest petrographic geologist.

GEORGE F. KUNZ

*Ka hana kapa: The Making of Bark Cloth in Hawaii.* By W. T. BRIGHAM, A.M., Sc.D. Memoirs of the Bishop Memorial Museum of Polynesian Ethnology, III. Honolulu, Museum Press. 1911. 4to. Pp. 273; 48 plates and atlas of 26 colored plates.

It is well known to ethnologists that among the few living men having personal and scientific knowledge of the ethnology of the Hawaiian Islands, the director of the Bishop

Museum stands unrivalled. During the period in which that museum has engaged in publication a succession of memoirs has proceeded from his pen, in which a vast amount of otherwise unwritten Polynesian lore is fortunately preserved. The present volume is devoted to the history and description of the bark cloth, tapa or kapa, of the Polynesians, a manufacture which reached its greatest perfection in Hawaii, and which, on the coming of the white man, with woven cloth and figured calico, deteriorated and soon practically ceased. Museum specimens alone preserve for us the actual material, on which Hawaiian art and fancy were so lavishly expended.

Dr. Brigham gives us first the history of its manufacture as described by the earliest voyagers, from Hawaii to Madagascar, the Philippines, and even Africa; then an account of the dyes and tools used; botanical descriptions and figures of most of the plants and trees from which the raw material was obtained; the uses of the finished product; the designs used in its ornamentation; a vocabulary of kapa terms, lists of the material studied in the various museums and in his own private collection, with numerous illustrations in the text; and finally an atlas of beautifully executed plates in color, reproducing the exact designs, with many black and white plates illustrating simpler variations, both from Hawaii and other regions where the art was practised.

Dr. Brigham and the trustees of the museum are to be congratulated on the appearance of this splendid monograph which preserves for posterity a wealth of information, much of which might, and indeed probably would, otherwise have been lost to the world in the course of a few years.

WM. H. DALL

#### ANNUAL REPORT OF THE SMITHSONIAN INSTITUTION

THE Smithsonian Report for the year 1910 has just been published by the institution. Besides the report of the regents and the secretary, the volume contains, as usual, a "General Appendix" consisting this year of