during the first half of August, whilst in the British Isles and in other parts of western Europe the weather was peculiarly dull and cold. For the week ending August 12, the mean of the maxima or highest day readings at Haparanda was 80°, at Bodö 74°, and in London and at Jersey 63°; whilst at Lisbon the mean was only 76°, and at Nice 78°.

The temperature of the sea-surface in the North Atlantic and in proximity to our coasts has for some time past been much below the average.

CHAS. HARDING.

CHIRIQUIAN ANTIQUITIES.¹

PROF. G. G. MACCURDY, of Yale University, has taken advantage of the fine collection of antiquities from Chiriqui under his charge to present to students a very valuable and interesting monograph, which is illustrated, in the usual lavish and artistic manner of our colleagues in the United States of America, by 384 figures in the text, 49 plates (five of which are coloured), and a map. The ancient cultured people of Chiriqui are apparently represented by the Guaymi, whose language shows affinity with that of the Chibcha of Colombia. The area now occupied by the republics of Colombia and Panama formed a linguistic and archæological barrier between the great civilisations of Mexico and Peru. In this culture zone the dominant factor is Chibchan; on the other hand, the ancient art of Chiriqui was influenced more by Mexico than by the south, but the Chiriquian culture was distinctively indigenous, and radiated into southern Costa Rica.

Attention is directed throughout the memoir to the general phylogenetic trend in the development of Chiriquian art as a whole. The elegant stone vessels carved in the form of a jaguar are traced back to an oval prototype with a hollow pedestal; with the exception of architecture, the stone art of Chiriqui compares favourably with that of Mexico or Peru. The especial interest of Chiriquian pottery was first emphasised by Prof. W. H. Holmes (Sixth Ann. Rep. Bur. Am. Ethnol., 1888), and Dr. MacCurdy has with slight modifications adopted his classification. The pottery, especially the unpainted ware, is the connecting link between the products of the stone worker and artificer in metal. The "prototype was presumably the calabash. Aside from this, the plant world had practically no influence on the elaboration of form and ornament." The unpainted ware includes the terra-cotta or biscuit group, or, as MacCurdy prefers to call it, the armadillo group, as its ornamentation is mainly based on the armadillo, and three smaller groups.

The painted ware consists of ten groups, of which the fish or tripod, lost colour, alligator, and polychrome groups are the most important (Fig. 1). As might be anticipated, the introduction of colour as a decorative factor often tended to mini-

mise the importance of incised and plastic features; the armadillo and serpent are practically never executed in paint, while incised or plastic motives derived from the alligator are equally rare. Very characteristic of Chiriquian pottery is the presence of three hollow legs, provided with long slits and containing pellets, which serve as a rattle; most of these in the painted ware have a fish ornamentation. The lost colour process was confined to a single, rather large, group of ware; it consisted of tracing the design in wax, the application of a solid coat of black paint over the area to be decorated, and immersing the vessel in hot water, which melted the wax, the design part that was waxed thus showing up light. An analogous method is employed in Java for decorating sarongs.

In the alligator group the designs are always on a pale yellow slip; black and red are the delineating colours. As a matter of fact, it is the crocodile, and not the alligator, which is depicted. The modifications which occur in the form of the crocodile or of parts of it constitute a very pretty

FIG. 1.—Polychrome ware. Vase of eccentric form, the chief ornamental feature being the elaborate branching scroll filling each of the two shoulder panels; the engaged crocodile motives are easily distinguished.

example of the conventionalisation of designs. The highest technical excellence was achieved in the polychrome group; here a purple colour was introduced derived from a non-ferruginous metallic oxide, and not from the *Purpura patula*, which was used to dye cotton thread; it is also characterised by elegant scroll designs derived from crocodiles. The gold Chiriquian figurines are famous, and are here treated adequately for the first time. Squier (1859) says he "was informed by the late Governor of the Bank of England that several thousand pounds' worth were annually remitted from the Isthmus as bullion to that establishment," where they were melted down.

A. C. HADDON.

THE BRITISH ASSOCIATION AT DUNDEE.

ONE of the most successful meetings of the British Association in recent years, and the largest since the Cambridge meeting of 1904, when the total attendance was 2789, in comparison with about 2500 at Dundee, was brought to a close as we went to press last week. A distinguishing and pleasing characteristic of the meeting was

¹ "A Study of Chiriquian Antiquities." By Prof. G. G. MacCurdy. (Memoirs of the Connecticut Academy of Arts and Sciences, vol. iii., March, 1911.) Pp. xx+249+xlx plates. (New Haven, Conn.: Yale University Press, 1911.)