

more or less irregular : just now, however, it is drawing so long a breath that one fears that its last message has been carried. We are now in the middle of December and the *October* number has not yet been heard of!

ANGELUS

The Pronunciation of Chinese Names

SOMEWHAT after date, I beg to return to the subject of Anglo-Franco-Chinese orthography, referred to in *NATURE*, vol. xxx. p. 592. In a short paper of mine published in the *Proceedings* of the Royal Geographical Society, vol. xxii. No. 6, 1877, I alluded to the desirability of a uniform or fixed "Roman equivalent" for Chinese characters standing for names of places, &c. I inclose a copy of this paper for insertion if desirable. To my mind the Italian vowels, &c., come nearest to the sounds of the Chinese characters. *Tung-King*, meaning "Eastern Capital," is the usually accepted form of *Tonquin*, or *Ton-Kin*, the terminal *g* being but slightly sounded. *Shang-hai*, the "Upper Sea," or the place "of going up to the sea," should be pronounced with the *g*, and is so spoken (Shanghai) by English and American authorities. Dr. Wells Williams has, I believe, in manuscript a standard Chinese Gazetteer of the World, in which all proper names likely to be used in telegraphy, newspapers, &c., are smoothly transliterated into Chinese characters. For translations from Chinese it is very necessary to adopt some such plan as Dr. Hunter has suggested for Indian names. Although his plan has come too late into the field to induce people to spell Calcutta as Kolkata, this is hardly the case as yet with Chinese names. The old native names of places should always be literally preserved. How much more beautiful is the old Franco-Indian name *Stadaconda* than Quebec for the scene of the death of Wolfe! I should be glad to co-operate or correspond with any interested in this matter, so prominent and important at the present juncture.

F. PORTER SMITH

Hillworth House, Shepton Mallet, December 12

EXPLORATIONS IN ICELAND¹

THE LAVA DESERT OF ÓDÁÐAHRAUN

III.

THE second part of my programme included the exploration of the western and southern portions of the Ódádahraun Desert. In this journey I spent a fortnight during the latter half of August, a thoroughly rough and arduous time, on account of the very unsettled weather alternating between cold and rain, tempestuous gales, snowstorms, and sand-hurricanes. My journey extended to 240 English miles, but only two oases of grass were discovered the whole way. Along the skirts of Vatnajökul, throughout the whole extent of the lavas and sand plateaus which form the northern fringe or border intersecting it from Ódádahraun, not one single blade of grass, nay, not even signs of mosses or lichens, are anywhere discoverable, hence we were obliged to provide ourselves with fodder for the horses in the shape of hay, oats, and maize dough.

The results of the journey are in every way as good as, under the circumstances, I could have anticipated. Now at last the whole of Ódádahraun, with its surrounding wildernesses, has been explored. The weather was often enough sufficiently clear and fair to give me an opportunity to note all that required surveying. The few who have travelled over various parts of these deserts before me have seen next to nothing, on account of bad weather. Ódádahraun, as stated in a former letter, is the largest lava-desert not only in Iceland, but in all Europe; the main portion of it has been formed by volcanic activity in Iceland in prehistoric times; but since the discovery of the island, even down to our own day, the region has witnessed a succession of eruptions. The various lava-flats form one plateau, the bounds of which are determined on the east by Jökulsá in Axarfjörð, south by Vatnajökul, west by Skjálfandafjót, north by Mývatn. At its southern extremity it rises to 3200, at its northern to from 1400 to 1500, feet above the level of the sea. Altogether I took

¹ Continued from vol. xxx. p. 585.

there about two hundred barometric and trigonometrical elevations and surveys. The separate lava-flats are due to about twenty separate volcanoes, honeycombed by hundreds of craters. Several of the separate lavas are, to the extent of many tens of square miles, one unbroken flat lava-field as it were; others, again, all torn up and disrupted, in some cases almost, in others entirely, impassable. The substratum of Ódádahraun is palagonite-tuff and breccia, over the top of which is spread the doleritic lava, the origin of which dates from before the Glacial period. Above all the modern lavas have flowed. All the mountains that tower above the lava consist of palagonite breccia; along their roots and spurs are frequently found rows of craters, as well as those shield-fashioned volcanoes from which the lavas have welled out. The largest volcanoes have been built up entirely by lava-floods, which have flowed successively over each other, so as to form enormous convexities presenting an equal inclination to every side, but so slight as to amount to only a few degrees. This kind of volcano, which in the north country is generally designated by the name of Dyngja, reaches in Iceland nowhere such dimensions as in Ódádahraun, as for instance Kollóttu-Dyngja, Trölladyngja, Kerlingar-Dyngja, Ketil-Dyngja. In some places many rows of craters are ranged together along rifts from north-east to south-west, as on Reykjanes, and in Dyngjufjöll, where the craters around Askja and along the slopes of the mountains are practically innumerable. In Ódádahraun proper hardly any water is found; rain sinks through the lava, and emerges again from under its edges in many small rivers and springs. The southernmost portion of Ódádahraun has already been buried under glacial mud and sand from Vatnajökul, incessantly poured over its edge towards the north by innumerable glacial rivulets, that mostly vanish into the underlying sands and the lavas over which they are spread. Some of the larger streams, however, find their way eastward to Jökulsá in Axarfjörð, and a few into Skjálfandafjót. In consequence of the elevation of Ódádahraun above the level of the sea, and of its waterless condition, it is a region almost barren of vegetation. On the drift-sand a few tufts of *Elymus arenarius* or stray specimens of *Statice armeria* and *Cerastium alpinum* may be found. Round the skirts of Ódádahraun, where the water wells forth, a good deal of vegetation shows in some places, especially along the western fringes, in the valleys of Skjálfandafjót, where summer-pastures form the sheep-walks of the inhabitants of Bárðardal. On the eastern side of Ódádahraun there are only two oases—Herðubreiðarlindir and Hvannalindir, and here the vegetation is confined to the banks of springs, its most distinguishing feature being the *Angelica archangelica*, which grows in small clusters or bushes everywhere along the banks of the brooks. There occur likewise some species of the slighter kinds of willow, such as *Salix glauca*, *S. phyllificolia*, *S. herbacea*, as well as a few species of heather. Over the watered shingle-flats about Herðubreiðarlindir there are spread in parts red carpets of the lovely French willow-herb (*Epilobium angustifolium*). Insect life is very poorly represented, hardly anything being visible, save a few *Diptera*. To the south of Ódádahraun not a plot of grass is to be seen, except at Gæsavötn, in Vonarskarð, where the vegetation is of the scantiest kind, comprising indeed little more than the *Salix herbacea*. Along glacial streams no sign of vegetation is ever apparent here; what little occurs grows along fresh-water springs.

It might be imagined that such a volcanic region as Ódádahraun would be rich in hot springs, solfataras, &c. But such is not the case. The main portion of the lava is now so old, that all such volcanic phenomena seem to have died out. Of warm springs only two may be said to be still in existence, both on the western side of the lava; yet they are only lukewarm (respectively 33½° and 35½° C.) About Gæsavötn such springs obviously once