

action in Iceland, as illustrative of the Tertiary condition of western Scotland. Not from central vents, like Vesuvius and Etna, but from fissures, have the Icelandic lavas been chiefly poured forth; the volcanic cones there are generally low, and yet from these little monticules great floods of lava have issued, forming wide volcanic plains. Plateaus are thus built up, suffering more or less dissection as they grow, sometimes assuming the form of vast domes with gentle slopes to all sides. Great volcanic plateaus of similar structure once existed where dissected remnants now form Skye, Mull and other island outliers west of Scotland or further north in the Faroes. Correlations of this kind between regions of similar structure, but in different stages of geographical development, are particularly instructive to the study of physiography.

#### THE GEOGRAPHY OF SILESIA.

PROF. JOSEPH PARTSCH, of the University of Breslau, has lately prepared a volume on Silesia (*Schlesien: eine Landeskunde für das deutsche Volk auf wissenschaftliche Grundlage*; Breslau, Hirt, 1896. 420 p.) to which the special student of European geography may refer with much advantage. It treats, among other topics, of geological structure, evolution of the land surface, drainage, climate, plants, animals, population, and Silesia as a seat of war. The plan of the more strictly geographical chapters is similar to that followed in the same author's work on Greece jointly with Naumann; that is, each subdivision is directly described for itself, rather than in its systematic relation to other geographical areas of similar structure, but perhaps in different stages of geographical development. The chapter on the evolution of the land surface is essentially a geological history of the region; not limited to the evolution of the existing surface forms, but beginning with the fundamental geiuss. The importance

of northern drift as a factor in determining surface form even so far south as to the Beskiden (Carpathians) in latitude 50° is for some reason more surprising than it should be to us, who have plentiful glacial drift in latitude 40°.

#### NOTES.

BOULE's work on the glaciation of Auvergne, noted in *SCIENCE*, April 17, 1896, from his brief report in the *Comptes rendus*, is now more fully described in the *Annales de Géographie*, v., 1896, 277-296, with excellent illustrations and several maps. This article would lead the scientific tourist to many points of interest in the neighborhood of the great volcanic slopes of the Cantal.

W. F. GANONG describes a delta at the outlet of Lake Utopia, New Brunswick, formed when its outflow of clear water is reversed to inflow of muddy water at time of flood in the neighboring Magaguadavic river (Occasional papers, No. 2,\* New Brunswick Nat. Hist. Soc.).

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#### CURRENT NOTES ON ANTHROPOLOGY.

##### A STUDY OF THE BASQUES.

ONE of the memoirs published last year by the Anthropological Society of Paris was by Dr. Collignon, on the Basques. The thorough manner in which that investigator does his work is well known to all students of the ethnography of France, and the present memoir is a good example of it. He begins by referring to the obscurity which has reigned concerning both the physical type of the Basques and the affinities of their tongue. His own personal ob-

\* Protest should be entered against the publication by the Council of the above-named Society of such stray leaves as this 'Occasional paper, No. 2.' There are to-day plenty of regularly established mediums of publication in which two-page essays may be issued, thus avoiding the serious difficulty of preserving and protecting loose sheets.

servations are numerous and accurate. They lend solid support to the conclusions he advances, the most interesting of which are as follows: 1. The Basques present a definite physical type not encountered elsewhere in Europe and limited to their linguistic boundaries. 2. There is sufficient evidence that they migrated into France from the Iberian peninsula since the fall of the Roman Empire, and therefore the ancient Aquitanians, Ligurians, etc., were not Basques, as has so often been maintained. 3. The general anatomical peculiarities of the Basques separate them distinctly from the Asiatic or Mongolian type, and stamp them as European. 4. Their earliest home must have been in some part of the Iberian peninsula, but there is no proof that they at any time occupied all of it. Nor is it possible to say that the Basque was the primitive speech of this people. It may have been forced upon them by some conquering tribe now disappeared.

#### THE TOLTECS IN FABLE AND HISTORY.

THERE are still some writers who believe in the fabulous 'Empire of the Toltecs,' the shadowy realm which in Mexican myth extended its dominion over vast areas and millions of men. The historical aspects of the question are examined anew by Dr. P. J. J. Valentini in the *Zeitschrift für Ethnologie*, No. 1, 1896.

He begins by denying the legends of the Mexican chroniclers. 'There was neither an empire, nor a nation, nor a language of the Toltecs.' He pursues his inquiry along the line principally of the Mayan traditions, and analyzes with acuteness the confused accounts they have preserved. Evidently to them, Tulan or Tula was a sort of generic term and was applied to various localities. Although usually derived from the Nahuatl, it may also be explained from Mayan radicals, with equal if not greater appropriateness. In a later and general sense he be-

lieves that it answered to the notion of town or city, as contrasted to country, and consequently of all that is civil and urbane as opposed to rustic; just as we see in these Latin terms.

The article is accompanied with a map showing the location of tribes and towns in Chiapas and vicinity, and its arguments will aid in clearing away many visionary notions about this alleged ancient people.

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#### SCIENTIFIC NOTES AND NEWS.

##### ASTRONOMY.

THE observatory of Yale University has published the fifth part of the first volume of its 'Transactions.' It contains the results of a heliometric triangulation of the principal stars of the cluster in Coma Berenices by Dr. F. L. Chase. The final result is a catalogue of the places of thirty-three stars for the epoch 1892.0.

IN the *Astronomical Journal* of June 29th Dr. See communicates the elements of the orbits of forty binary stars computed by himself. The table of elements is of interest because all the orbits have been obtained by a nearly uniform process. Dr. See finds that the average eccentricity of the forty stars considered is 0.45, but he draws no other general conclusions as to the general characteristics of binary star orbits.

IN the *Astronomical Journal* of July 8th Dr. S. C. Chandler publishes his third catalogue of variable stars. Progress in this department of astronomical science has been so rapid of late, that it has not been possible to keep pace with new discoveries by merely issuing supplements to the former catalogue of variables. The following paragraph of Dr. Chandler's introduction to his catalogue is not without interest. Dr. Chandler says:

"Very few stars within reach of the astronomers of the northern hemisphere, who have so actively devoted their energies to this class of work, have been seriously neglected. It is especially interesting to note the fact that this harmonious development has been obtained without any concerted scheme of 'cooperation,' but by the free will and independently planned