

ornamentation with drumlins and gravel beds, such as must greatly aid the field work of any enterprising teacher who leads her classes in geography out of doors. The practical difficulty that the teacher of to-day will find in using such a guide as this essay will arise, first, from a want of a sufficiently comprehensive scheme of geographical study, by which the facts of local observation shall be correlated with geographical facts generally; and second, from the absence of a series of comparative examples, by which local features may be used to illustrate the various parts of the world which they resemble.

JAMAICA.

SPENCER continues his Antillean studies in an article on Jamaica (Late Formations and Great Changes of Land in Jamaica, *Canadian Journal*, V., 1898, 324-357), from which the following notes are taken: The White-limestone uplands, deeply dissected, abound in caverns and are in part uninhabitable from the numerous sinks, or 'cock-pits,' 200-300 feet in diameter and 'deeper than they are wide.' The border of the uplands is dissected by torrential wash-outs, which enter broad-floored valleys 'almost reduced to the base level of erosion.' The northern coast is comparatively abrupt in its descent into the sea; this "suggests great dislocations off that part of Jamaica, and that the forces which squeezed up the island also rammed down the sea floor to the north." On the south coast broad valleys floors independent of structure form embayments sloping to the shore line from among highland spurs. The lower portions of certain streams have cut canyons beneath former broad valleys floors, indicating recent uplift; several examples of this kind being shown on the northern coast.

CUBA.

A 'TIMELY' article on Cuba from the competent pen of R. T. Hill is the leading

article in the 'Cuba number' of the *National Geographic Magazine* (IX., 1898, 193-242). Besides a brief summary of physiographic features, it gives a good general account of population and industries, in which the physiographic control is well brought forward. A contour map, compiled from the best known authorities, is a valuable contribution to the geography of the island.

APPALACHIA.

THE latest number of *Appalachia*, March, 1898, includes a number of good illustrations of the Canadian Rocky Mountains from photographs, some of which are from the great series taken by the Dominion Topographical Survey. The usual mountain-climber's narratives are by Thompson and Habel. The region is of strong Alpine scenery—grand snow fields aloft; great glaciers descending into the upper valleys; old moraines of huge size farther down; avalanche paths on steep slopes beneath high cliffs; lakes curiously related to the larger valleys. Although as yet not productive of many physiographic essays, there is no part of his continent that offers so good and so accessible a field for the careful study of Alpine forms.

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CURRENT NOTES ON ANTHROPOLOGY.

THE RATIO OF HUMAN PROGRESS.

At the last meeting of the British Association, Mr. George Iles read a suggestive paper, 'Why human progress is by leaps.' He points out that the triumphs of man over nature in the discovery of its laws of action are not simple additions to his resources, but are multipliers of high potency, often extending over the whole field of his activity. This he illustrates by the manifold applications of electricity in our own day, and by the use of fire in prehistoric times. He draws the conclusion that man's

advance will in the future be at a continually accelerated pace.

This reasoning is closely akin to that of Lewis H. Morgan in the chapter on the rate of human progress in his 'Ancient Society' (New York, 1878). He there argues that culture-progress proceeds by geometrical, not arithmetical ratios; which is substantially Mr. Iles' position.

It should be borne in mind, however, that true culture cannot be measured by criteria drawn solely from the utilitarian arts. Civilization has been nicely defined by a French writer as a 'state of mind,' rather than a schedule of possessions; and this is signally true.

THE ITALIAN ANTHROPOLOGICAL INSTITUTE.

UNDER the title 'Istituto Antropologico Italiano,' Dr. Giuseppe Marina has opened at Leghorn an establishment which has for its aim the popularizing of anthropologic work, and also the collection of material for scientific purposes. It embraces psychological, antropometrical, pathological and ethnographic investigations. Persons can apply and for a moderate fee have themselves examined by the most approved modern methods in all these directions. A careful record is kept, and the same individual may return from time to time to have the examination repeated—a procedure in which he has a personal interest, while the comparative results thus obtained will prove of value to science. In addition to this feature, lectures, publications, open discussions and other plans for attracting and educating the public in anthropologic matters will be cultivated. The history of culture, demography, sociology and hygiene will be brought forward with especial prominence.

Dr. Marina deserves great credit for this excellent and original scheme of bringing home to the general public the practical value of anthropology. A descriptive cir-

cular may be obtained by addressing him (Livorno, Italy).

'ORGANIC' SOCIOLOGY.

THERE was a time when it was quite useful to speak of language as an 'organism' and human society as an 'organism.' The word brought the inter-relation of parts clearly to the mind. That there was any actual identity, either of parts or of functions, or of laws of growth, with anatomical organisms was not intended. Of late, however, a class of writers have insisted on such identity, and have carried it out in quite ridiculous parallels, such as that the railroads are arteries, the frontiers are the epidermis, etc. (Lillienfeld, Worms).

Nothing is gained by these similes, which are, in fact, empty literary formulas; and it is gratifying to see that such solid writers as Lester F. Ward, in this country, in the *Journal of Sociology*, and Dr. S. R. Steinmetz, in the *Zeitschrift für Socialwissenschaft*, have condemned them as unscientific, and barren of profitable results. As much may be said of the term 'super-organism,' proposed by Mr. Herbert Spencer, though that writer defines it in such a manner as to divest it of most of its erroneous suggestiveness. Professor Giddings adopts 'physio-psychic organism' as the correct term for the social group; but this is just as applicable to the living individual, and, applied to a society, may be as misleading.

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NOTES ON INORGANIC CHEMISTRY.

FULLER particulars regarding the liquefaction of hydrogen and helium by Professor Dewar have come to hand in his paper in the *Proceedings* of the Chemical Society. As early as 1895 Dewar had constructed an apparatus by which he could produce a jet of hydrogen containing liquid. It was then shown that such a jet could be used to cool substances below the temperature which