

septum, serving to support the latter and also to support the oviducts.

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(To be concluded.)

CURRENT NOTES ON PHYSIOGRAPHY.

DRAINAGE OF SOUTHERN OHIO.

THE greater part of the Allegheny plateau and its westward slope is drained by streams of the simplest kind, dissecting horizontal strata in irregularly branching valleys. But for some years aberrant valley forms have been recognized in the upper Ohio region, special attention having been given to their meaning by W. G. Tight in his latest article on 'Some preglacial drainage features of southern Ohio' (Bull. Scient. Lab. Denison Univ., IX., 1897, 22-32). Confirmation is given to earlier views as to the composite origin of the modern Ohio. The preglacial drainage of the region led the Kanawha (via Teazes Valley), Big Sandy and other streams northward, across the present Ohio Valley, to a common trunk near Waverly. By some process not specified, the Ohio was given a course across the middle of this earlier system, deepening the older valleys for part of the distance, and elsewhere trenching across the divides at the lowest cols. The trenched cols, where the Ohio Valley is narrow and steep-walled, occur below Vanceburg, just above Portsmouth and above Guyandotte. Leverett appends a brief account of his contribution to this problem (l. c., 18-21).

THE COASTAL PLAIN OF MEXICO.

STUDIES by J. W. Spencer ('Great changes of level in Mexico and the inter-oceanic connections;' Bull. Geol. Soc. Amer., IX., 1897, 13-34) give, among other matters, an account of the coastal plain, or *tierra caliente*, that fronts the Mexican plateaus on the Gulf side. It has a breadth of fifty miles back of Vera Cruz, reaching an elevation of

1,560 feet at the inner margin, where the plateau ascends boldly thousands of feet above it. The inclined surface of the plain has not a uniform rise, but is made up of a number of steps or terraces, 50 to 100 feet high, with sloping plains between them. Streams descend from the plateau in valleys having a succession of reaches and falls; the same streams trench their way across the coastal plain. A brief account is given of the 'Geological Canal of Chivela,' on the divide of the Isthmus of Tehuantepec, 776 feet above the sea; its floor having lately been swept over the ocean currents during a depressed attitude of the region.

MOUNTAIN STRUCTURES OF PENNSYLVANIA.

THE prevalent belief in the frequent occurrence of synclinal ridges in denuded mountain ranges is discussed by A. P. Chittenden (Bull. Amer. Geogr. Soc., XXIX., 1897, 175-180), who cites the opinions of a number of authors on the matter. After showing that there is no logical reason to expect the more frequent occurrence of synclinal than of anticlinal ridges in ancient, deeply dissected mountains, the Appalachian ridges of Pennsylvania are classified and measured in three groups, monoclinal, anticlinal and synclinal; the total lengths for each group being 1,333, 334 and 245 miles. Synclinal ridges are, therefore, exceptional; the length of the monoclinal ridges far exceeding that of the other two classes. Synclinal ridges of Pottsville conglomerate in the anthracite coal regions are relatively more common than elsewhere, but even there the monoclinal ridge prevails. The synclinal valley between two neighboring monoclinal ridges often has a high-level floor, but it is surmounted and enclosed so distinctly by two ridges that the three forms cannot properly be described as a single synclinal mountain.

YOUNG, MATURE AND OLD LAND FORMS.

THE use of age-terms suggestive of sys-

tematic changes in the form of the land with the passage of time has come to be generally accepted as a means of geographical description, but not with entire agreement by all writers. One of the first illustrations of this good fashion was in an account of the driftless region of Wisconsin, in which 'topographic old age' was applied to the beautifully dissected hills of the driftless area, where an abundant and varied relief still survives. This would seem to exclude such a term as 'mature,' and to leave no appropriate term for a plain of complete denudation. In another paper the Alps are cited as 'young' mountains, denudation having there progressed 'only far enough to sculpture into very rugged relief the strata of varying hardness.' This would seem to underestimate the enormous amount of destructive work done in the Alps, and to imply that their deformation began not very long ago. Indeed, if 'young' is to be applied geographically to mountain ranges like the Alps, thoroughly dissected by adjusted valleys, some other term than 'young' would be needed for the moderately denuded Jura, or for the still less denuded lava blocks of southern Oregon. It is hardly advisable to increase the series of age terms very far, although infantile, young, youthful, adolescent, mature, decadent, senile and old have all been more or less used. Young, mature and old, with qualifying adverbs, should at any rate suffice for elementary descriptions; and in such a series both the dissected uplands of the driftless area of Wisconsin and the vigorous peaks and valleys of the Alps should be called 'mature.'

W. M. DAVIS.

CURRENT NOTES ON ANTHROPOLOGY.

RACIAL SOCIOLOGY OF EUROPE.

An interesting review of the researches of Lapouge and Ammon on the above subject is presented by Carlos C. Closson in the

American Journal of Sociology for November last. The principal racial criterion, the sole one, indeed, is assumed to be the shape of the skull, and particularly of the cranial index. Dividing the area of France into the most dolichocephalic and the most brachycephalic departments, the sociological comparison shows that the dolichocephalic elements excel, not simply in the ownership of wealth, but still more in wealth-producing capacity, and most of all in commercial and financial activity. The dolichocephalic departments pay the most taxes, are more densely populated, richer and generally flourishing. They owe more money and own more bicycles. They also travel more to the cities in larger numbers.

Both Lapouge and Closson accept these results as in some way the consequences of dolichocephaly; but another view, not discussed by either, is that this form of skull is less a cause than a consequence. The studies of the late Dr. Harrison Allen on Hawaiian skulls, now in process of publication, will show that improved conditions of life profoundly modify the cranial form within the limits of the race.

THE DOOM OF THE AMERICANS.

An able and profound study of the birth rate in Massachusetts is given by Arsene Dumont in the *Journal de la Société de Statistique de Paris*, November, 1897. He shows by incontrovertible data that the marriages among the 'American born' in that State and in surrounding parts of New England reveal a steady diminution in the birth rate. This is not new. It has been emphasized by several of our own statisticians. But what is new is M. Dumont's study of its causes.

He finds its chief cause in the principle of democracy. This develops individualism, the overpowering desire of each to live his own life to the best personal advantage, to get all the good there is going, be it in the