

the theory, once granted, than to grant it and its retinue of corollary assumptions. But the mere novelty and unfamiliarity of the conception, not to say the strange difficulty that the reader experiences at first in orienting himself in a pendulating world, need hardly of itself invite to indifference or contempt. A hypothesis, however unproven or unprovable, which puts into such new and clear light so many obscure phenomena seems to me to deserve, at least at the hands of students of distribution, a modicum more of attention than has recently been accorded it by a British reviewer. As for the ultimate disposition of such theories as those of Reibisch and Kreichgaur, that is clearly more likely to fall within the province of astrophysics than of faunistic biology.

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MOREHOUSE'S COMET

A COMET was discovered photographically at the Yerkes Observatory on the evening of September 1, by Professor D. W. Morehouse, of Drake University, Des Moines, Ia., who has been engaged in graduate work during the summer under the direction of Professor Barnard.

The comet's position on the three plates simultaneously exposed on that night was approximately: R. A. $3^{\text{h}} 20^{\text{m}}$; Dec. North $+66^{\circ}$.

Several photographs were also obtained by Professors Barnard and Morehouse on September 2 and 3, from which quite accurate positions will be determined. The tail is shown on the plates for a length of about six degrees, and exhibits some interesting structure. Although the comet made a strong impression on the discovery plates, it was faint visually when seen on the following night, and was without any definite nucleus. The coma was not large, but was uniformly diffuse.

A micrometric position was obtained with the 12-inch refractor by Mr. Fox, as follows: Sept. 2, G. M. T., $17^{\text{h}} 45^{\text{m}}$, R. A. $= 3^{\text{h}} 21^{\text{m}} 55^{\text{s}}$; Dec. $= +66^{\circ} 52' 24''$.

The motion is thus seen to be toward the north, with a slight westerly component. The

comet is of course above the horizon in northern latitudes through the whole night.

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SPECIAL ARTICLES

NOTE UPON THE STRUCTURE OF THE SANTA CATALINA GNEISS, ARIZONA

THE extensively-developed pre-Cambrian gneiss of the South side of the Santa Catalina Mountains near Tucson, Arizona, is remarkable for its tabular form; its regular stratification; its altitude at low angles; its broad flat surfaces and in places, for its extreme foliation, passing from coarse grained tabular granitic-gneiss into micaceous, sericitic and hornblende schists. Seen from a distance, especially from the locality known as Gibbon's Rancho, the croppings appear like ordinary stratified sandstones and shales. Close inspection reveals an elongated drawn out and flattened structure, which it is the special object of this paper to note.

The whole series appears to have been elongated under great pressure, resulting in flattening and spreading out into thin layers with a consequent reduction of thickness and an increased lamination.

I purposely refrain from describing this modification of form as a "flow" or as "flow-structure" for these terms convey the impression of a much more mobile condition than existed and of superficial movement rather than of the interior elongation by stretching under great pressure of a deeply seated mass of comparatively solid rock.

The compression and extension are shown in several ways, but specially by the elongation of nodules of feldspar; by sheets of quartz which seem to have been rolled out like dough and impressed by nodular masses of feldspar above and below.

The phenomena remind the observer of the curiously elongated rocks in California; the "grave-stone slates" and sandstones of the middle gold region, which are there uplifted at high angles, while in the Catalina gneiss the dip is gentle, approaching horizontality.