

ical factors at present operative, is not easily established, but observation points strongly toward the latter as controlling forces.

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#### DIKES IN THE HAMILTON SHALE NEAR CLINTONVILLE, ONONDAGA COUNTY, NEW YORK

THE presence of a few igneous intrusions in the almost undisturbed Paleozoic strata of central New York has long been known to geologists. Their extreme rarity, however, has always invested them with a peculiar interest.

Excluding the Manheim Dike near Little Falls, which lies about seventy-five miles east of Syracuse and which cuts Ordovician strata, we find that these igneous rocks may be grouped geographically into (1) those occurring in the vicinity of Ithaca and Ludlowville and (2) those occurring in the vicinity of Syracuse. In both regions the intrusions are peridotite and are mostly true dikes cutting in the first case such Upper Devonian formations as the Genesee shale and the Portage and Ithaca shales and sandstones, and in the second case cutting the Salina beds of Silurian age.

As far as the writer has been able to learn, the geologically intermediate Hamilton shale has, until now, yielded no dikes and the recent discovery of two in this formation at a locality about twelve miles southwest of Syracuse and about forty miles northeasterly from Ithaca is believed to be a matter of interest.

The dikes in question are exposed on the south wall of the Clintonville Ravine at a point approximately fifty feet above the level of the Marietta road. The more western is a fine-grained porphyritic rock resembling peridotite. What appear to be serpentine grains, produced by the alteration of olivine, protrude from the weathered surface and have the appearance of small pebbles. Another conspicuous feature is furnished by large scales of a bronzy mica. This dike has a uniform width of from seven to eight inches and is displayed for about twelve feet on the south bank of the ravine. On the north side it is obscured by talus. Its plane is vertical, while its direction

is north and south, agreeing in this latter respect with the Ithaca dikes. Wherever examined it presents a very uniform texture, is apparently free from fragments of the sedimentary rocks through which it passed, and has produced little contact metamorphism.

The second dike discovered by the writer lies about two feet and four inches to the east of the first and was not observed until the wall at this point had been cleaned. It has a width of about eight inches. Like the first dike, it is vertical and north and south in direction. It differs, however, from the first dike in being much weathered in places and in containing many shale fragments some of which have a long diameter of three inches or more.

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#### GUINEA PIG GRAFT-HYBRIDS

IN May, 1907, I published results demonstrating, (1) that iso-engrafted ovaries in fowls subsequently exhibit a reproductive function; and (2) that such resulting offspring give evidence of a "soma" or "foster mother" influence.<sup>1</sup> The same year, Professor Wilhelm Magnus, of the University of Christiania, obtained similar results on a rabbit.<sup>2</sup>

The purpose of this note is to record results obtained on a guinea pig. November 6, 1908, the ovaries of a young guinea pig were removed and in the former site of the right ovary, the left ovary from a sister guinea pig was engrafted. The guinea pig was bred and in the latter part of July or the early part of August, 1909, gave birth to two young.<sup>3</sup> As all the animals were mongrels it is obvious that no conclusion regarding foster mother influence is possible.

In SCIENCE,<sup>4</sup> September 3, 1909, Professor Castle reports the birth of two guinea pigs from a spayed white mother carrying en-

<sup>1</sup> Proceedings of the society, *American Journal of Physiology*, Vol. XIX., pp. xvi-xvii, July, 1907.

<sup>2</sup> *Norsk magazin for laegevidenskaben*, No. 9, 1907.

<sup>3</sup> November 12, the operated animal gave premature birth to two more young.

<sup>4</sup> N. S., Vol. XXX., No. 766, pp. 312-313.