In the quarries at North Buffalo the disconformity between the Bullhead and Onondaga was studied. This time-gap is faintly marked, but very careful study has shown that a thin layer of sandstone, in some places hardly more than a single layer of Quartz sand grains, lies between the two disconformable formations. In one place there is a remarkable dike of the intervening sand injected into the underlying formations, extending clear through the Bull-head into the Bertie.

On the return trip from Buffalo to New York the party made one stop at Portage to examine the upper gorge of the Genesee River, and the upper Devonic formations exposed there. Members of the party who desired to do so then joined the students from the School of Mines for a week's field work in the region about Newburgh, where the crystalline rocks of the Highlands and the stratigraphy and structure of the Skunnemunk Mountain region were studied and mapped in detail.

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Preliminary Note on the Embryogeny of Symplocarpus Fœtidus Salisb.

Last year Mr. W. H. Lippold, while engaged in graduate work in the botanical department of the University of Minnesota, undertook a study of the embryo-sac development and embryogeny of *Symplocarpus fœtidus* Salisb.

The work was not carried to completion, some important points being left undecided because of lack of material. The writer, upon the suggestion of Professor Lyon, has taken up the unfinished work and hopes to bring out in a subsequent paper an account of the observations made.

Some interesting facts have already been established and it seems advisable to call attention to these at the present time. Briefly stated they are as follows:

The gynœcium is almost always one-chambered, although two chambers infrequently occur.

The ovule is solitary, axial, orthotropous and pendant from the roof of the chamber.

The two integuments which are formed do not completely enclose the nucellus.

A massive endosperm develops and rapidly consumes the nucellus, the inner and outer integuments, and pushes back into the basal tissue of the ovule.

The protocorm soon assumes a somewhat campanulate shape with a short, thick suspensor at its narrower, proximal end.

The radicle and plumule are both differentiated at the suspensor end of the protocorm.

The developing protocorm completely consumes the endosperm as well as all the remaining ovular tissue except the base of the hilum, which remains closely appressed to its broad end.

The embryo, therefore, comes to lie free in the chamber of the gynœcium without any trace of seed coats or enveloping membranes.

The mature embryo is nearly spherical and measures 8–11 mm. in diameter.

The epidermal and subepidermal cells have their walls considerably thickened, while the walls of the former are distinctly cuticularized.

The metacormal axis is short and bent back upon itself, the plumule lying close to the radicle.

The so-called 'seeds' of *Symplocarpus fœtidus* are naked embryos.

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Lower Paleozoic Formations in New Mexico.[1]

The older Paleozoic strata have generally been considered absent in New Mexico. During the past summer, while engaged in field work for the U. S. Geological Survey, under the direction of Mr. Waldemar Lindgren, the undersigned found Cambrian, Ordovician, Silurian and Devonian formations at various places along a belt which crosses Grant, Sierra and Luna counties, and extends from the east side of the Rio Grande westward beyond the Arizona line and probably connects with the similar formations of the Clifton copper district in Arizona.[2]

[1] Published by permission of the director, U. S. Geological Survey.

[2] W. Lindgren, professional paper, U. S. Geological Survey, No. 43.